ABSTRACT

The developmental toxicity of gasoline with TAME (tert-amyl methyl ether) vapor condensate was evaluated in 25 confirmed-mated female Crl:CD®(SD)IGSBR rats/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 (GD) 5 through GD 20. Maternal toxicity was evident as statistically significant differences in mean gestation body weight change and food consumption in the 20,000 mg/m^3 target group. Fetal body weight was statistically significantly decreased and the incidence of stunted females was slightly increased in the 20,000 mg/m^3 target concentration group. No other evidence of developmental toxicity attributable to the test material was observed at any exposure level. Therefore, the No Observable Adverse Effect Level for both maternal toxicity and developmental toxicity was considered to be 10,000 mg/m^3.

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FINAL REPORT

PROJECT NUMBER: 171534

TEST SUBSTANCE: GASOLINE WITH TAME VAPOR CONDENSATE
(MRD-00-715)

WHOLE-BODY INHALATION DEVELOPMENTAL TOXICITY STUDY IN RATS
WITH GASOLINE WITH TAME VAPOR CONDENSATE (MRD-00-715)

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

08TP 18

STUDY COMPLETION DATE: December 3, 2008

APPROVAL SIGNATURES

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

12/2/08
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 exceptions.

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.

Water and feed analyses were not performed in a GLP compliant laboratory.

These minor deviations from the EPA Principles of Good Laboratory Practice had no adverse effect on the integrity or results of the study.

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

3 DEC 08
Date

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

10/29/2008
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, Toxicology and Environmental Sciences:	D. J. Devlin, Ph.D.
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: 171534

TEST SUBSTANCE: MRD-00-715

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	31 Oct 01	31 Oct 01	01 Nov 01, 11,14 Jan 02
Cylinder Refilling	13,14 Feb 02	14 Feb 02	15,22 Feb 02
Mating Confirmation	12 Feb 02	12 Feb 02	26,27 Mar 02
Cage Washing	08,11 Mar 02	11 Mar 02	14 Mar 02, 16,17 Apr 02
Fetal Head Evaluation	25 Mar 02, 01 Apr 02	01 Apr 02	01 Apr 02, 23,28 May 02
Final Report	18 Jun 02 – 25 Jul 02	25 Jul 02	20 Nov 06, 05 Dec 06
Second Review of Final Report	18 Oct 06, 13-17 Nov 06	17 Nov 06	11,18 Jan 07
Third Review of Final Report	27,28 Feb 08	28 Feb 08	3 Mar 08
Fourth Review of Final Report	17 Sep 08	19 Sep 08	23-Sep-08 07-Oct-08

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

Robert Pristas

Robert Pristas, M.S.

6 Nov 08

Date

Section 1

SUMMARY

This study was conducted to evaluate the potential developmental toxicity of the test substance, Gasoline with TAME Vapor Condensate (GTVC). GTVC was administered via whole-body inhalation exposure to pregnant rats during the period of major organogenesis and fetal growth. GTVC was administered by whole-body inhalation exposure to 25 confirmed-mated Crl:CD®(SD)IGSBR female rats at target concentrations 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 20. The Sponsor selected the exposure levels based upon safety considerations and previously conducted mammalian toxicity studies. The high dose of 20,000 mg/m^3 was selected based on safety concerns as one-half of the Lower Explosive Limit.

Clinical observations were made daily during gestation. Body weight and food consumption measurements were made on GD 0, 5, 8, 11, 14, 17, 20, and 21. On GD 21 animals were sacrificed by CO_2 asphyxiation followed by exsanguination. The reproductive organs and the abdominal and thoracic cavities were examined grossly. Uterine weights with ovaries attached were recorded. Uterine contents were examined, and the numbers of live, dead and resorbed fetuses were recorded. All fetuses were weighed, sexed externally, and examined externally for gross malformations. Apparent non-gravid uteri were placed in 10% ammonium sulfide solution for confirmation of non-pregnancy status.

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 judged to be alive at the cesarean section were eviscerated, processed for skeletal staining, stained for bone and cartilage, and examined for the presence of skeletal malformations and variations.

SUMMARY (CONT'D)

There was evidence of maternal toxicity in this study at the target concentrations of 20,000 mg/m^3. Statistically significant decreases in body weight change were evident in the 20,000 mg/m^3 group for the GD 5–8 interval and the GD 11-14 interval. Statistically significant decreases in food consumption also were evident at the 20,000 mg/m^3 target concentration group during the GD 5-8, GD 8-11, GD 11-14, and GD 5-20 intervals. The only indication of maternal toxicity at the 10,000 mg/m^3 target concentration was a statistically significant decrease in food consumption on GD 5-8; this was not considered clear evidence of maternal toxicity, since no other time intervals were significantly affected and since there was no significant effect on maternal body weight or body weight gain at any time interval. All dams with the exception of one 20,000 mg/m^3 target concentration group animal that delivered its litter on GD 20 survived to scheduled terminal sacrifice on GD 21. At the GD 21 cesarean section two 2000 mg/m^3 target concentration group animals and one animal in the 10,000 mg/m^3 target concentration group were found to be not pregnant (*i.e*. no evidence of implantation sites); this was not considered a treatment-related effect. All animals were free of clinical or postmortem effects attributable to treatment with GTVC.

Fetal body weight in the 20,000 mg/m^3 target group was statistically significantly decreased compared to the control group and the incidence of stunted fetuses also was slightly increased in this group. No other evidence of developmental toxicity attributable to the test material was observed at any exposure level.

In conclusion, administration of gasoline with TAME condensate to rats by whole-body inhalation exposure during the period of organogenesis and fetal growth produced evidence of maternal toxicity at the target concentrations of 20,000 mg/m^3 as indicated by decreased body weight change and decreased food consumption. There also was evidence of developmental toxicity at the target concentration of 20,000 mg/m^3 as indicated by decreased fetal body weight.

Therefore, the No Observable Adverse Effect Level for both maternal and developmental toxicity was considered to be 10,000 mg/m^3.

Section 2

INTRODUCTION

This study was conducted to evaluate the developmental toxicity of Gasoline with TAME Vapor Condensate (MRD-00-715) administered via whole-body inhalation exposure to pregnant rats 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)

February 3, 2002

EXPERIMENTAL START DATE

February 9, 2002

EXPERIMENTAL TERMINATION DATE

August 7, 2002

INLIFE TEST PERIOD

February 3, 2002 to March 8, 2002

JUSTIFICATION FOR SELECTION OF TEST SYSTEM

The rat is one of the species required by the EPA for the developmental toxicity testing requirement of Section 211b of the Clean Air Act. (EPA, 1994)

INTRODUCTION (CONT'D)

JUSTIFICATION OF DOSING ROUTE

Exposure by inhalation is a likely route of human exposure.

JUSTIFICATION OF DOSE SELECTION

The high dose of 20,000 mg/m^3 was selected based on safety concerns as one-half of the Lower Explosive Limit. The low dose (2000 mg/m^3) was expected to produce a No Adverse Effect Level based on the results of previous subchronic and developmental studies conducted on this material, related materials, or some combination thereof. The mid dose (10,000 mg/m^3) was selected as the approximate mid point between the low and high doses to produce a dose response relationship, if one existed in this treatment range.

COMPLIANCE

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 June1994.

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

This study was conducted in accordance 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.

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.

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-00-715
Sponsor Identification:	Gasoline with TAME Vapor Condensate
Supplier:	Chevron Research and Technology Company
Lot #:	API 01-04
Description:	Colorless liquid
Storage Condition:	Ambient outdoor conditions under nitrogen

Date Received:	Container numbers[a]:	Expiration Date:
June 14, 2001	1A (2[b]), 2A (2[b]), 3A (2[b]),	June 14, 2006

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

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 documentation of methods of synthesis, fabrication, and/or derivation of the test fuel was the responsibility of the Sponsor. This was not completed when the study initiated, but is currently with the Sponsor.

TEST SUBSTANCE

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 rats. A backup analytical device (calibrated infrared vapor monitor) was also available. The hourly chromatographic analyses showed four of the major components of the test atmosphere and was 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 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.

Particle Size Analysis. A particle size determination of the aerosol portion of the test atmosphere was conducted at least once during the chamber trials from the 20,000 mg/m^3 target concentration chamber, as well as the control chamber. 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. Since minimal aerosol was present, no further calculations were performed for the aerodynamic diameter, geometric standard deviation, or the estimated percents of the aerosol less than or equal to 1, 10, and 15 microns in size.

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:	Rat
Strain/stock:	Crl:CD®(SD)IGSBR (VAF/Plus)
Supplier:	Charles River Laboratories, Inc. Raleigh, North Carolina

Animal Receipt Information (Females)

Receipt Date:	January 22, 2002
Shipping Reference Number:	70204611

Quarantine and Acclimation Period

12 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; the additional 50 females were ordered to assure there would be 100 mated females and to make the mating as efficient as possible without exceeding the necropsy capacity of the laboratory.

50 sexually mature males (22-23 weeks old at the initiation of mating) received for mating purposes from a different colony than the females to assure they were not siblings. These rats were also used for mating with at least one other study. The males were received on November 6, 2001.

Age at Initiation of Gestation (Designated GD 0)

Females: Approximately 13 - 14 weeks

Weight at Initiation of Gestation (Designated GD 0)

Females: 236 to 325 grams

TEST SYSTEM

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 Clinton Facility, 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

Housing

Room Number:	PE103
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:	30 to 70 percent relative humidity
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:	62 to 78 degrees Fahrenheit
Humidity:	45 to 90 percent relative humidity

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

Light Intensity

Animal Room Light Intensity:	11 to 21 foot-candles
Chamber Room Light Intensity:	35 to 50 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: 73.9 to 82.1 db
Oxygen Level: 20.6 to 20.9%
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 by 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 (WEIGHT) using the GD 0 body weights to ensure mean body weight was similar between all groups on GD 0.

Experimental Groups

Group Number	Number of Females per Group	Target Dose (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 20.

The Chamber

The chambers used for exposure are stainless steel and glass 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

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 exception of those noted in the Protocol Exceptions section of this report.

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, 20, and 21. Food consumption was measured for mated females on GD 5, 8, 11, 14, 17, 20, and 21. 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 placed in a refrigerator to slow down and eventually terminate vital signs after the external examination and weighing.

Mated females were euthanized on GD 21. 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 with 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

Examination of Fetuses

Each live fetus (alive *in utero*) 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.

Prior to visceral examinations any live fetuses were euthanized by a subcutaneous injection with sodium pentobarbital. The viscera of approximately one-half of the live fetuses (alive *in utero*) 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.

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 were maintained in the EMBSI Toxicology Laboratory Archives until they were returned to the Sponsor.

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 was 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. All other tests were conducted at the 5% and 1% level of significance. However, the 5% level of significance was considered statistically significant for these analyses. The 1% level of significance was reported as additional information.

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 21
- 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 21
- Gestation food consumption for females that were not pregnant
- Pup body weights from litters that delivered before GD 21 were not included in the analyses of fetal body weights
- Pup external observations from litters that delivered before GD 21 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, variations, or observations) 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
Malformations for All Fetuses
Malformations for Alive Fetuses
Variations for All Fetuses
Variations for Alive 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

All dams with the exception of one dam in the 20,000 mg/m^3 target concentration group that delivered its litter on GD 20 survived to scheduled terminal sacrifice on GD 21. At the GD 21 cesarean section two dams in the 2000 mg/m^3 target concentration group and one animal in the 10,000 mg/m^3 target concentration group were found to be not pregnant (*i.e.* no evidence of implantation sites).

There were no clinical signs indicative of maternal toxicity due the test material. The majority of dams in all dose groups were free of observable abnormalities during the entire gestation period. Clinical signs were limited to alopecia of the trunk for one control dam and two dams in the 2000 mg/m^3 target concentration group and delivery in progress for one dam from the 20,000 mg/m^3 target concentration group. Clinical signs were not evident in the 10,000 mg/m^3 target concentration group.

GESTATION BODY WEIGHT

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

No statistically significant differences were noted between control and treated mean body weight at any interval. However, statistically significant decreases in body weight change from the control group were evident in the 20,000 mg/m^3 target concentration group for the GD 5-8 ,interval and the GD 11-14 interval. Additionally, statistically significant decreasing linear trends were evident for these intervals and for the GD 5-21 and GD 0-21 intervals. These statistically significant trends and the statistically significant decreases in mean body weight change were considered evidence of maternal toxicity at 20,000 mg/m^3. There also was a statistically significant decreasing linear trend in mean body weight change evident at the GD 0-21C interval; however, the lack of fit test indicated that the linear regression test was not appropriate for the GD 0-21C data. The analyses of the GD 5-21, GD 0-21, and GD 0-21C intervals also showed a significant difference among the means, but the differences did not involve the control group. No other statistically significant differences in body weight change were evident between the treated and control groups.

Statistically significant decreasing linear trends in mean body weight were evident on Days 14 and 20. These trends were not considered biologically significant because they were not accompanied by a statistically significant decrease in body weight in any treatment group, the differences in weight were small, and were not consistently present.

RESULTS AND CONCLUSIONS/DISCUSSION (CONT'D)

GESTATION FOOD CONSUMPTION

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

Statistically significant decreases in food consumption compared to controls were evident at the GD 5-8, GD 8-11, GD 11-14, and GD 5-20 intervals for the 20,000 mg/m^3 target concentration group. Statistically significant decreasing linear trends or ordered responses also were evident at these intervals and at the GD 0-21 interval. These decreases were considered to be treatment-related.

At the 10,000 mg/m^3 target concentration, a statistically significant decrease in food consumption compared to the control group was observed at the GD 5-8 interval, but not at any other intervals. This was not considered to be biologically significant, since decreased food consumption was not observed at any other interval and since there was no effect on maternal body weight or maternal body weight change at this or any other interval.

At the 2000 mg/m^3 target concentration, a statistically significant increase in food consumption was observed at the GD 20-21 interval. This difference was not attributed to the test material.

GROSS POSTMORTEM OBSERVATIONS

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

The gross postmortem examination of the dams revealed red material and a placenta in the stomach of the dam from the 20,000 mg/m^3 target concentration group that delivered on Gestation Day 20. Alopecia of the trunk was evident for one control dam and two dams in the 2000 mg/m^3 target concentration group. All other dams were free of grossly observable abnormalities.

UTERINE IMPLANTATION DATA

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

There were no statistically significant differences in the uterine implantation parameters between the control and the treated groups.

RESULTS AND CONCLUSIONS/DISCUSSION (CONT'D)

FETAL BODY WEIGHT

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

There was a statistically significant difference in the mean fetal body weight among the dose groups based on a mixed model analysis of variance that considered dose group, litter size and fetal sex as explanatory values. The mean fetal body weight of the 20,000 mg/m^3 target concentration group was statistically significantly lower than the control fetal body weight based on a pair-wise comparison using least square means (Table 4-1).

Table 4-1. Evaluation of Mean Fetal Weights by Least Square Means

Exposure Group (mg/m^3)	n litters	n fetuses	observed fetus mean (gm)	Least squares fetus mean (gm)
0	25	374	5.33	5.31
2,000	23	344	5.35	5.37
10,000	24	362	5.34	5.35
20,000	24	366	5.09	5.10*

* statistically significantly different from control, $p<0.05$

FETAL OBSERVATIONS

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

External Observations

The incidences of fetal external observations are presented in Appendix H. There were no statistically significant differences in the incidence of any fetal external observations. No external malformations were observed in the 20,000 mg/m^3 target concentration group. The external malformations observed among the other groups were limited to low incidences of malrotated hind paw and single incidences of discolored abdomen, acaudate, and filamentous tail. Additionally, Fetus Number 1 of the litter of IGL260 in the 10,000 mg/m^3 target concentration group displayed agnathia, apparent macrophthalmia, exencephaly, exophthalmos, malpositioned eye, malpositioned pinna, microstomia, naris atresia, open eye, and spina bifida. The incidence of stunted fetuses (< 4 grams), which was not considered to be a malformation, was slightly increased compared to the controls.

RESULTS AND CONCLUSIONS/DISCUSSION (CONT'D)

Visceral Observations

The incidences of fetal visceral observations are presented in Appendix H. There were no statistically significant differences from controls in the incidence of the fetal visceral observations. Neither the incidences of visceral malformations nor visceral variations was statistically significantly increased when considered individually or collectively. There were two fetuses with multiple visceral malformations in the 10,000 mg/m^3 target concentration group: (1) Fetus Number 8 of the litter of IGL143 exhibited ascites, malpositioned kidneys, malpositioned uterus, malpositioned ovaries, and malpositioned oviducts, and (2) Fetus Number 1 of the litter of IGL260 exhibited situs inversus and transposition of the greater vessels.

Skeletal Observations

The incidences of skeletal observations are presented in Table 4-2, Appendix H, and Appendix K. The only statistically significant differences in skeletal observations involved rudimentary supernumerary ribs. The incidence of rudimentary supernumerary ribs was statistically significantly increased in the male fetuses of the 20,000 mg/m^3 target concentration group when compared to the control group. However, this was not considered to be biologically significant since the incidence of rudimentary supernumerary ribs was statistically significantly decreased in the female fetuses of the 20,000 mg/m^3 target concentration group when compared to the control group. There were no other statistically significant differences between the control and treated groups for the incidence of skeletal observations. The most frequently noted of the other observations during fetal examinations were bifid centra of the thoracic vertebrae, and dumbbell-shaped thoracic centra anlage.

Table 4-2 – Incidence of Selected Fetal Skeletal Observations

Fetal Incidence (# of fetuses with observation/# of fetuses examined)				
Target Dose (mg.m^3)	0	2000	10,000	20,000
Skeletal Observation				
Total with skeletal variations	34/192	34/171	32/181	27/183
Rudimentary supernumerary ribs- Combined Sexes	18/192	14/171	17/181	16.183
Rudimentary supernumerary ribs – Males	4/96	8/94	8/83	11/85*
Rudimentary supernumerary ribs – Females	14/96	6/77	8/98	5/98*
Litter Incidence (# of litters with observation/# of litters examined)				
Target Dose (mg.m^3)	0	2000	10,000	20,000
Skeletal Observation				
Total with skeletal variations	19/25	16/23	16/24	16/24
Rudimentary supernumerary ribs – Combined Sexes	11/25	11/25	8/24	10/24
Rudimentary supernumerary ribs – Males	3/24	8/22	5/24	8/24*
Rudimentary supernumerary ribs – Females	10/25	5/22	5/24	3/24*

* Statistically significantly different from control value

RESULTS AND CONCLUSIONS/DISCUSSION (CONT'D)

EXPOSURE DATA AND CHAMBER CONDITIONS

Summary of Exposure Data: Appendix I

The range of chamber concentrations for the exposure period as represented by the daily mean analytical data and nominal data of each day are listed in Table 4-3:

Table 4-3 - Mean Daily Exposure Concentrations (Analytical and Nominal)

Target	2000 mg/m^3		10,000 mg/m^3		20,000 mg/m^3	
	Analytical	Nominal	Analytical	Nominal	Analytical	Nominal
Mean	2073	2024	10149	10051	20303	18883
S.D.	65.6	101.9	441.0	312.9	641.8	478.9
Minimum[a]	1924	1857	9525	9499	17627	16881
Maximum[a]	2175	2325	12078	11313	20871	19436

S.D. - Standard deviation
a – Minimum or maximum daily mean

Satisfactory chamber uniformity was observed for the 12 points in the chamber that were analyzed. The range of concentrations for each chamber are listed in Table 4-4.

Table 4-4 - Summary of Chamber Uniformity

Target	2000 mg/m^3	10,000 mg/m^3	20,000 mg/m^3
Mean	2014	10087	20279
S.D.	96.3	523.1	827.7
CV (%)	4.8	5.2	4.1
Minimum	1842	9404	19003
Maximum	2127	10872	21727

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 detected particles at a level of 15 and 2.0 mg/m^3 target concentration chambers, respectively. These particles were judged to be ambient background particles (*e.g.* animal dander) and not from the generation of the test substance.

The oxygen levels in the chambers ranged from 20.6 to 20.9% at the intervals when they were monitored. The noise level in the chambers ranged from 73.9 to 82.1 db. The light intensity in the chamber room ranged from 35 foot-candles to 50 foot-candles.

DISCUSSION

There was evidence of maternal toxicity in this study at the target concentrations of 20,000 mg/m^3. Statistically significant decreases in body weight change were evident in the 20,000 mg/m^3 group for the GD 5–8 interval and the GD 11-14 interval. Statistically significant decreases in food consumption also were evident at the 20,000 mg/m^3 target concentration group at the GD 5-8, GD 8-11, GD 11-14, and GD 5-20 intervals. The only suggestion of maternal toxicity at the 10,000 mg/m^3 target concentration was a statistically significant decrease in food consumption on GD 5-8; this was not considered clear evidence of maternal toxicity, since no other time intervals were significantly affected and since there was no significant effect on maternal body weight or body weight gain at any time interval.

No statistically significant decreases in body weights were observed at any interval in any treatment group. However, maternal body weight gain for discrete segments of gestation is usually a more sensitive indicator of maternal effects than either the final body weight at term or total body weight gain over the entire gestation period. The decrease in maternal weight gain at the 20,000 mg/m³ target concentration groups was concomitant with the reduction of maternal food consumption in this treatment group.

Fetal body weight in the 20,000 mg/m^3 target group was statistically significantly decreased compared to the control group. No other evidence of developmental toxicity attributable to the test material was observed at any exposure level.

The only statistically significant differences in the incidence of fetal anomalies involved unusual differences between male and female fetuses in the incidences of rudimentary supernumerary ribs. The incidence of rudimentary supernumerary ribs was statistically significantly increased in the male fetuses of the 20,000 mg/m^3 target concentration group when compared to the control group. However, the incidence of rudimentary supernumerary ribs was statistically significantly decreased in the female fetuses of the 20,000 mg/m^3 target concentration group when compared to the control group. The incidence of rudimentary ribs was not statistically significantly different in any treatment group when the fetuses of both sexes were combined.

In conclusion, administration of gasoline with TAME vapor condensate to rats by whole-body inhalation exposure during the period of organogenesis and fetal growth produced maternal toxicity at the target concentration of 20,000 mg/m^3 as indicated by decreased body weight change and decreased food consumption. There also was evidence of developmental toxicity at the target concentration of 20,000 mg/m^3 as indicated by decreased fetal body weight. Therefore, the No Observable Adverse Effect Level for both maternal and developmental toxicity was considered to be 10,000 mg/m^3.

PROTOCOL EXCEPTIONS

GESTATION DAY 0 BODY WEIGHT: The Gestation Day 0 body weights for animals IGL260, IGL155 and IGL202 exceeded the acceptable range of 200-300 grams specified in the protocol.

MEAN CHAMBER CONCENTRATION: The mean chamber concentration for the 10000 mg/m^3 target treatment group chamber was 12078 on February 23, 2002. This deviation was caused by the float being stuck in the rotameter, which caused the concentration of the four-hour sample to be extremely high.

The mean chamber concentration for the 20,000 mg/m^3 target concentration chamber was 17,627 on February 20, 2002. This deviation was caused by an apparent problem with the dip tube, which caused an extremely low concentration at the last sampling of the exposure.

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 outside the protocol defined range. The individual temperature and humidity deviations are noted in Appendix I as bold italicized values.

EXTERNAL EXAM OF FETUS 13, IGL177: The external examination data was not recorded for fetus 13 of the Group 3 dam IGL177.

March 4, 2002 GROUP 2 ROTAMETER.: On March 4, 2002 the Group 2 concentration was low at the 6-hour reading. A check of the rotameter found that the rotameter was set too low. The rotameter was reset and the system worked properly.

These deviations 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

LIST OF ABBREVIATIONS

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	Fetuses with malformations
Var	Fetuses with variations
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

LIST OF ABBREVIATIONS

FETAL EXTERNAL AND VISCERAL EXAMINATIONS

+ = No observable abnormalities
Stunted = Any fetus weighing less than 4.00 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. "*").

Clarification of location of supernumerary ribs (L1 vs T14)

Supernumerary ribs were classified as occurring at L1 if the number of presacral vertebrae was 26. If an extra presacral vertebrae was present and a supernumerary rib was present, the location was recorded as T14.

Section 6

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APPENDIX A - SURVIVAL BAR GRAPH
TARGET 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	19	20	21
IGL176F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL180F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL156F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL160F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL170F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL144F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL148F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL149F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL211F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL172F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL231F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL188F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL226F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL248F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL258F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL202F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL252F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL259F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL201F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL272F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL207F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL238F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL241F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL288F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL279F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=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	19	20	21
IGL159F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IGL147F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL150F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL151F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL153F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL157F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL158F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL167F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL168F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL169F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL213F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL162F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL178F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL229F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL254F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL257F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IGL262F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL206F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL204F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL215F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL274F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL223F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL263F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL277F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL269F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=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	19	20	21
IGL173F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL177F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL182F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL143F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL142F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IGL146F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL194F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL166F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL152F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL209F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL196F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL181F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL189F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL191F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL237F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL246F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL216F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL228F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL260F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL208F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL225F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL227F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL236F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL242F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL214F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=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	19	20	21
IGL186F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL145F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL155F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL161F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL163F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL154F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL222F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=D	
IGL224F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL183F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL192F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL220F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL221F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL230F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL200F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL234F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL261F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL255F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL266F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL268F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL212F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL232F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL243F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL244F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL282F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGL275F	(21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P

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

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	19	20	21
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	25	25	25
2000 MG/M^3	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
10,000 MG/M^3	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
20,000 MG/M^3	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	24
NO OBSERVABLE ABNORMALITIES																						
0 MG/M^3	25	25	25	25	25	25	25	25	25	25	25	25	25	25	24	24	24	24	24	24	24	24
2000 MG/M^3	23	23	23	23	23	23	23	23	23	23	23	22	22	22	22	22	22	22	21	21	21	21
10,000 MG/M^3	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
20,000 MG/M^3	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	24	24
ALOPECIA TRUNK																						
0 MG/M^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
2000 MG/M^3	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2
10,000 MG/M^3	0	0	0	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	0	0	0
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	0	0	0	0
2000 MG/M^3	0	0	0	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	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	0	1	0

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

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS BY TARGET DOSE)
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	19	20	21
IGL176F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL180F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL156F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL160F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL170F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL144F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL148F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL149F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL211F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL172F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL231F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL188F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS BY TARGET DOSE)
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	19	20	21
IGL226F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-
	ALOPECIA TRUNK		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+
IGL248F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL258F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL202F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL252F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL259F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL201F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL272F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL207F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL238F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL241F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL288F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL279F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS BY TARGET DOSE)
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	19	20	21
IGL159F																								
	NOT PREGNANT																							
IGL147F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL150F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL151F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL153F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL157F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-
	ALOPECIA TRUNK		-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
IGL158F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL167F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL168F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL169F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL213F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL162F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS BY TARGET DOSE)
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	19	20	21
IGL178F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL229F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL254F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL257F																								
	NOT PREGNANT																							
IGL262F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-
	ALOPECIA TRUNK		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+
IGL206F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL204F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL215F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL274F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL223F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL263F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL277F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL269F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS BY TARGET DOSE)
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	19	20	21
IGL173F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL177F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL182F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL143F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL142F																								
	NOT PREGNANT																							
IGL146F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL194F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL166F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL152F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL209F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL196F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL181F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL189F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS BY TARGET DOSE)
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	19	20	21
IGL191F	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL237F	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL246F	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL216F	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL228F	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL260F	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL208F	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL225F	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL227F	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL236F	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL242F	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL214F	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS BY TARGET DOSE)
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	19	20	21
IGL186F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL145F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL155F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL161F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL163F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL154F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL222F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	DELIVERY IN PROGRESS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	
IGL224F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL183F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL192F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL220F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL221F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL230F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS BY TARGET DOSE)
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	19	20	21
IGL200F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL234F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL261F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL255F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL266F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL268F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL212F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL232F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL243F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL244F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL282F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGL275F																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(MEAN GESTATION BODY WEIGHT BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR STATISTICAL SYMBOLS ON PAGES 5-1 AND 5-2)
(GRAMS)

	GD 0	GD 5	GD 8	GD 11	GD 14	GD 17	GD 20	GD 21	UTERUS	GD 21C
FEMALE	A-L-	A-L-	A-L-	A-L-	A-L	A-L-	A-L	A-L-	A-L-	A-L-
0 MG/M^3										
MEAN	269.7	299.5	306.5	316.0	328.9	356.6	405.0	422.6	110.9	311.7
STD.DEV.	17.1	19.4	18.9	22.6	25.3	28.0	33.6	34.7	21.4	25.7
(N)	25	25	25	25	25	25	25	25	25	25
2000 MG/M^3										
MEAN	270.7	300.3	308.7	320.0	333.3	363.3	413.4	433.9	111.3	322.6
STD.DEV.	14.7	16.0	15.5	17.5	18.8	20.0	23.5	25.7	15.5	18.8
(N)	23	23	23	23	23	23	23	23	23	23
10000 MG/M^3										
MEAN	270.2	298.6	303.9	313.3	326.3	356.2	403.3	424.4	112.4	312.0
STD.DEV.	14.6	13.8	15.3	15.4	16.3	18.5	21.4	24.5	11.7	16.5
(N)	24	24	24	24	24	24	24	24	24	24
20000 MG/M^3										
MEAN	270.3	300.7	302.7	310.8	318.8	348.5	395.3	414.3	108.3	306.0
STD.DEV.	14.8	17.2	14.1	16.8	18.8	20.2	22.3	25.4	12.3	21.2
(N)	24	24	24	24	24	24	24	24	24	24

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(MEAN GESTATION BODY WEIGHT CHANGE BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR STATISTICAL SYMBOLS ON PAGES 5-1 AND 5-2)
(GRAMS)

	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-20	GD 20-21	GD 5-21	GD 0-21	GD 0-21C
FEMALE	A-L-	A+L+	A-L-	A+L+	A-L-	A-L-	A-L-	A+L+	AL	A+L+Q
0 MG/M^3										
MEAN	29.8	7.0	9.6	12.9	27.7	48.4	17.6	123.1	152.9	42.0
STD.DEV.	7.1	5.1	6.2	5.1	7.4	8.6	6.3	21.8	25	15.2
(N)	25	25	25	25	25	25	25	25	25	25
2000 MG/M^3										
MEAN	29.7	8.4	11.3	13.3	30.0	50.1	20.5	133.6	163.3	52.0
STD.DEV.	6.9	4.6	5.2	4.4	5.0	7.0	5.9	18.5	19.8	13.3
(N)	23	23	23	23	23	23	23	23	23	23
10000 MG/M^3										
MEAN	28.4	5.3	9.5	13.0	29.9	47.1	21	125.8	154.2	41.8
STD.DEV.	8.1	7.0	6.3	4.4	6.7	7.8	6.1	15.8	17.0	12.6
(N)	24	24	24	24	24	24	24	24	24	24
20000 MG/M^3		*		**						
MEAN	30.5	2.0	8.1	8.0	29.7	46.7	19.0	113.6	144	35.8
STD.DEV.	8.5	7.9	4.2	6.6	5.5	11.0	7.0	20.1	20	14.3
(N)	24	24	24	24	24	24	24	24	24	24

NOTE:
GD - GESTATION DAY
21C (DAY 21 CORRECTED) = DAY 21 BODY WEIGHT - UTERINE WEIGHT

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

ANIMAL NUMBER	GD 0	GD 5	GD 8	GD 11	GD 14	GD 17	GD 20	GD 21	GD 21C	UTERINE WEIGHT
IGL176F	267	295	303	312	330	355	405	433	320	113
IGL180F	251	277	287	296	303	329	368	386	286	100
IGL156F	256	292	296	314	319	348	391	411	307	104
IGL160F	257	286	293	304	317	345	398	423	309	114
IGL170F	277	309	315	333	344	372	421	427	321	106
IGL144F	273	314	317	323	345	385	449	466	339	127
IGL148F	283	313	330	335	351	370	426	451	326	125
IGL149F	277	297	298	307	319	348	396	418	300	118
IGL211F	276	298	309	320	337	368	409	426	295	131
IGL172F	261	284	298	310	325	361	416	425	289	136
IGL231F	250	282	288	288	301	324	365	382	274	108
IGL188F	283	307	319	328	344	380	432	451	335	116
IGL226F	270	295	304	311	326	357	409	422	300	122
IGL248F	262	285	298	300	304	309	331	337	310	27
IGL258F	289	327	325	332	355	370	413	422	332	90
IGL202F	325	365	369	396	412	446	501	524	403	121
IGL252F	263	306	305	318	327	356	414	433	302	131
IGL259F	255	289	295	303	313	342	394	421	317	104
IGL201F	267	294	308	315	334	364	406	424	314	110
IGL272F	258	285	289	303	310	341	390	408	298	110
IGL207F	274	289	295	290	302	325	364	381	290	91
IGL238F	275	315	318	331	346	376	422	443	325	118
IGL241F	294	322	330	343	356	387	447	453	321	132
IGL288F	251	280	279	287	291	326	377	398	280	118
IGL279F	249	282	294	302	312	332	381	400	299	101

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

ANIMAL NUMBER	GD 0	GD 5	GD 8	GD 11	GD 14	GD 17	GD 20	GD 21	GD 21C	UTERINE WEIGHT
IGL159F NP										
IGL147F	264	284	301	318	332	357	409	430	322	108
IGL150F	291	318	328	338	350	385	441	458	322	136
IGL151F	267	293	300	314	324	353	396	416	318	98
IGL153F	269	298	303	316	324	358	408	428	301	127
IGL157F	251	286	296	314	321	355	403	425	315	110
IGL158F	262	293	299	313	322	345	398	424	315	109
IGL167F	286	320	329	354	371	414	476	512	372	140
IGL168F	264	300	313	322	343	370	432	454	341	113
IGL169F	275	313	321	328	344	371	417	448	336	112
IGL213F	287	312	315	325	339	362	396	407	345	62
IGL162F	264	294	291	294	306	337	386	404	295	109
IGL178F	263	290	300	310	326	355	406	427	320	107
IGL229F	259	274	294	293	306	344	396	416	310	106
IGL254F	296	332	339	356	371	398	445	467	349	118
IGL257F NP										
IGL262F	271	307	315	327	339	362	408	423	319	104
IGL206F	255	282	293	303	320	347	404	422	298	124
IGL204F	294	324	331	339	358	388	449	471	339	132
IGL215F	261	296	302	312	315	342	393	408	306	102
IGL274F	238	276	282	292	309	337	374	401	298	103
IGL223F	284	322	332	342	358	390	439	448	336	112
IGL263F	286	305	316	326	336	366	410	431	328	103
IGL277F	266	299	306	318	327	361	411	432	323	109
IGL269F	272	289	295	307	326	359	412	428	312	116

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

ANIMAL NUMBER	GD 0	GD 5	GD 8	GD 11	GD 14	GD 17	GD 20	GD 21	GD 21C	UTERINE WEIGHT
IGL173F	253	286	284	299	309	328	369	383	295	88
IGL177F	288	312	322	315	336	362	386	424	320	104
IGL182F	246	293	298	303	323	359	406	427	311	116
IGL143F	270	301	299	310	322	354	406	421	309	112
IGL142F NP										
IGL146F	272	312	310	325	338	373	424	453	330	123
IGL194F	272	285	298	301	307	342	383	405	296	109
IGL166F	271	304	306	318	329	363	423	448	327	121
IGL152F	248	274	279	289	299	323	370	390	297	93
IGL209F	258	295	300	306	316	339	387	406	293	113
IGL196F	270	306	307	321	333	358	397	422	314	108
IGL181F	270	299	307	318	329	361	412	430	315	115
IGL189F	281	307	308	312	325	362	423	447	322	125
IGL191F	291	309	324	331	350	392	437	464	334	130
IGL237F	254	282	284	289	303	334	375	389	292	97
IGL246F	255	286	285	299	314	341	378	391	297	94
IGL216F	288	312	330	340	362	400	452	475	346	129
IGL228F	277	300	305	315	327	358	404	422	308	114
IGL260F	304	337	342	351	357	380	427	457	333	124
IGL208F	285	299	305	322	337	352	407	421	299	122
IGL225F	259	277	289	295	307	337	387	402	278	124
IGL227F	261	291	294	303	313	350	401	417	308	109
IGL236F	276	299	318	327	335	364	407	428	325	103
IGL242F	273	308	297	324	334	356	405	429	323	106
IGL214F	263	293	302	307	326	361	414	434	316	118

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

ANIMAL NUMBER	GD 0	GD 5	GD 8	GD 11	GD 14	GD 17	GD 20	GD 21	GD 21C	UTERINE WEIGHT
IGL186F	278	309	302	315	325	352	398	412	320	92
IGL145F	269	293	299	305	292	313	397	410	284	126
IGL155F	301	338	342	355	372	408	466	487	359	128
IGL161F	252	265	280	288	300	329	376	397	294	103
IGL163F	267	299	305	323	330	364	396	435	313	122
IGL154F	256	297	309	322	332	364	409	433	310	123
IGL222F D	256	281	284	294	307	336	379	D	D	D
IGL224F	256	282	288	293	291	326	376	391	286	105
IGL183F	269	300	301	306	316	339	378	382	268	114
IGL192F	283	311	310	323	329	363	418	445	329	116
IGL220F	267	300	294	300	312	339	387	413	295	118
IGL221F	264	304	310	320	333	370	430	451	326	125
IGL230F	264	299	303	308	313	339	380	395	296	99
IGL200F	264	306	301	303	309	334	380	396	302	94
IGL234F	276	304	304	310	322	349	389	407	294	113
IGL261F	278	301	306	311	326	354	409	428	328	100
IGL255F	270	318	295	298	304	341	382	401	288	113
IGL266F	259	274	286	288	297	325	373	389	288	101
IGL268F	236	265	276	282	298	338	385	390	276	114
IGL212F	280	314	314	322	322	345	376	394	308	86
IGL232F	291	317	314	325	332	368	403	426	327	99
IGL243F	278	302	302	311	326	357	406	430	319	111
IGL244F	274	315	312	324	334	355	395	415	306	109
IGL282F	256	285	288	293	296	327	363	382	295	87
IGL275F	298	319	324	335	341	366	414	434	333	101

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(INDIVIDUAL GESTATION BODY WEIGHT CHANGE 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 17-20	GD 20-21	GD 5-21	GD 0-21	GD 0-21C
IGL176F	28	8	9	18	25	50	28	138	166	53
IGL180F	26	10	9	7	26	39	18	109	135	35
IGL156F	36	4	18	5	29	43	20	119	155	51
IGL160F	29	7	11	13	28	53	25	137	166	52
IGL170F	32	6	18	11	28	49	6	118	150	44
IGL144F	41	3	6	22	40	64	17	152	193	66
IGL148F	30	17	5	16	19	56	25	138	168	43
IGL149F	20	1	9	12	29	48	22	121	141	23
IGL211F	22	11	11	17	31	41	17	128	150	19
IGL172F	23	14	12	15	36	55	9	141	164	28
IGL231F	32	6	0	13	23	41	17	100	132	24
IGL188F	24	12	9	16	36	52	19	144	168	52
IGL226F	25	9	7	15	31	52	13	127	152	30
IGL248F	23	13	2	4	5	22	6	52	75	48
IGL258F	38	-2	7	23	15	43	9	95	133	43
IGL202F	40	4	27	16	34	55	23	159	199	78
IGL252F	43	-1	13	9	29	58	19	127	170	39
IGL259F	34	6	8	10	29	52	27	132	166	62
IGL201F	27	14	7	19	30	42	18	130	157	47
IGL272F	27	4	14	7	31	49	18	123	150	40
IGL207F	15	6	-5	12	23	39	17	92	107	16
IGL238F	40	3	13	15	30	46	21	128	168	50
IGL241F	28	8	13	13	31	60	6	131	159	27
IGL288F	29	-1	8	4	35	51	21	118	147	29
IGL279F	33	12	8	10	20	49	19	118	151	50

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE (INDIVIDUAL GESTATION BODY WEIGHT CHANGE 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 17-20	GD 20-21	GD 5-21	GD 0-21	GD 0-21C
IGL159F NP										
IGL147F	20	17	17	14	25	52	21	146	166	58
IGL150F	27	10	10	12	35	56	17	140	167	31
IGL151F	26	7	14	10	29	43	20	123	149	51
IGL153F	29	5	13	8	34	50	20	130	159	32
IGL157F	35	10	18	7	34	48	22	139	174	64
IGL158F	31	6	14	9	23	53	26	131	162	53
IGL167F	34	9	25	17	43	62	36	192	226	86
IGL168F	36	13	9	21	27	62	22	154	190	77
IGL169F	38	8	7	16	27	46	31	135	173	61
IGL213F	25	3	10	14	23	34	11	95	120	58
IGL162F	30	-3	3	12	31	49	18	110	140	31
IGL178F	27	10	10	16	29	51	21	137	164	57
IGL229F	15	20	-1	13	38	52	20	142	157	51
IGL254F	36	7	17	15	27	47	22	135	171	53
IGL257F NP										
IGL262F	36	8	12	12	23	46	15	116	152	48
IGL206F	27	11	10	17	27	57	18	140	167	43
IGL204F	30	7	8	19	30	61	22	147	177	45
IGL215F	35	6	10	3	27	51	15	112	147	45
IGL274F	38	6	10	17	28	37	27	125	163	60
IGL223F	38	10	10	16	32	49	9	126	164	52
IGL263F	19	11	10	10	30	44	21	126	145	42
IGL277F	33	7	12	9	34	50	21	133	166	57
IGL269F	17	6	12	19	33	53	16	139	156	40

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE (INDIVIDUAL GESTATION BODY WEIGHT CHANGE 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 17-20	GD 20-21	GD 5-21	GD 0-21	GD 0-21C
IGL173F	33	-2	15	10	19	41	14	97	130	42
IGL177F	24	10	-7	21	26	24	38	112	136	32
IGL182F	47	5	5	20	36	47	21	134	181	65
IGL143F	31	-2	11	12	32	52	15	120	151	39
IGL142F NP										
IGL146F	40	-2	15	13	35	51	29	141	181	58
IGL194F	13	13	3	6	35	41	22	120	133	24
IGL166F	33	2	12	11	34	60	25	144	177	56
IGL152F	26	5	10	10	24	47	20	116	142	49
IGL209F	37	5	6	10	23	48	19	111	148	35
IGL196F	36	1	14	12	25	39	25	116	152	44
IGL181F	29	8	11	11	32	51	18	131	160	45
IGL189F	26	1	4	13	37	61	24	140	166	41
IGL191F	18	15	7	19	42	45	27	155	173	43
IGL237F	28	2	5	14	31	41	14	107	135	38
IGL246F	31	-1	14	15	27	37	13	105	136	42
IGL216F	24	18	10	22	38	52	23	163	187	58
IGL228F	23	5	10	12	31	46	18	122	145	31
IGL260F	33	5	9	6	23	47	30	120	153	29
IGL208F	14	6	17	15	15	55	14	122	136	14
IGL225F	18	12	6	12	30	50	15	125	143	19
IGL227F	30	3	9	10	37	51	16	126	156	47
IGL236F	23	19	9	8	29	43	21	129	152	49
IGL242F	35	-11	27	10	22	49	24	121	156	50
IGL214F	30	9	5	19	35	53	20	141	171	53

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE (INDIVIDUAL GESTATION BODY WEIGHT CHANGE 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 17-20	GD 20-21	GD 5-21	GD 0-21	GD 0-21C
IGL186F	31	-7	13	10	27	46	14	103	134	42
IGL145F	24	6	6	-13	21	84	13	117	141	15
IGL155F	37	4	13	17	36	58	21	149	186	58
IGL161F	13	15	8	12	29	47	21	132	145	42
IGL163F	32	6	18	7	34	32	39	136	168	46
IGL154F	41	12	13	10	32	45	24	136	177	54
IGL222F D	25	3	10	13	29	43	D	D	D	D
IGL224F	26	6	5	-2	35	50	15	109	135	30
IGL183F	31	1	5	10	23	39	4	82	113	-1
IGL192F	28	-1	13	6	34	55	27	134	162	46
IGL220F	33	-6	6	12	27	48	26	113	146	28
IGL221F	40	6	10	13	37	60	21	147	187	62
IGL230F	35	4	5	5	26	41	15	96	131	32
IGL200F	42	-5	2	6	25	46	16	90	132	38
IGL234F	28	0	6	12	27	40	18	103	131	18
IGL261F	23	5	5	15	28	55	19	127	150	50
IGL255F	48	-23	3	6	37	41	19	83	131	18
IGL266F	15	12	2	9	28	48	16	115	130	29
IGL268F	29	11	6	16	40	47	5	125	154	40
IGL212F	34	0	8	0	23	31	18	80	114	28
IGL232F	26	-3	11	7	36	35	23	109	135	36
IGL243F	24	0	9	15	31	49	24	128	152	41
IGL244F	41	-3	12	10	21	40	20	100	141	32
IGL282F	29	3	5	3	31	36	19	97	126	39
IGL275F	21	5	11	6	25	48	20	115	136	35

NOTE: NP - ANIMAL NOT PREGNANT GD - GESTATION DAY D - EARLY DELIVERY
21C (DAY 21 CORRECTED) = DAY 21 BODY WEIGHT - UTERINE WEIGHT

APPENDIX D - GESTATION FOOD CONSUMPTION
(MEAN GESTATION FOOD CONSUMPTION BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR STATISTICAL SYMBOLS ON PAGES 5-1 AND 5-2)
(GRAMS)

	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-20	GD 20-21	GD 5-20	GD 0-21
FEMALE	A-L-	A+L+	A+L+	K+J+	KJ-	A-L-	AL-Q	A+L+	AL+
0 MG/M^3									
MEAN	121.2	72.0	70.4	70.7	72.3	76.4	23.8	362.7	508.1
STD.DEV.	14.7	7.0	7.8	10.4	11.2	9.1	3.9	37.3	51.5
(N)	25	25	25	25	24	25	25	24	24
2000 MG/M^3							*		
MEAN	122.2	72.7	72.2	74.7	74.7	79.6	26.5	374	522.7
STD.DEV.	12.7	5.6	7.3	8.0	6.4	6.3	3.3	29.9	41.2
(N)	23	23	23	23	23	23	23	23	23
10000 MG/M^3									
MEAN		*							
STD.DEV.	118.3	66.9	65.8	69.2	73.6	77.9	23.8	353.4	497.5
(N)	8.3	6.9	5.4	5.0	6.3	6.1	3.1	22.9	28.7
	24	24	24	24	24	24	24	24	24
20000 MG/M^3		**	*	**				*	
MEAN	121.5	65.8	64.2	64.2	69.3	75.6	23.4	338.1	483.3
STD.DEV.	13.3	6.2	7.8	6.7	6.3	7.6	3.9	28.8	39.2
(N)	24	24	24	24	24	24	23	24	23

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 17-20	GD 20-21
IGL176F	107	69	68	75	66	72	30
IGL180F	107	64	62	63	63	64	23
IGL156F	119	65	70	65	68	71	21
IGL160F	121	69	68	40	93	76	24
IGL170F	120	69	76	72	70	75	18
IGL144F	137	78	75	76	83	93	30
IGL148F	124	82	74	81	44	81	30
IGL149F	111	63	65	67	B	72	25
IGL211F	113	74	74	79	78	70	20
IGL172F	113	70	70	72	70	74	18
IGL231F	121	73	65	68	63	65	22
IGL188F	114	73	74	76	81	85	28
IGL226F	100	71	66	74	77	81	25
IGL248F	112	74	70	67	66	71	23
IGL258F	119	70	67	72	66	76	21
IGL202F	167	92	98	102	103	109	32
IGL252F	143	75	69	68	71	79	19
IGL259F	124	77	65	66	70	80	24
IGL201F	107	64	63	69	71	72	22
IGL272F	119	65	67	67	75	74	26
IGL207F	116	66	57	62	65	70	21
IGL238F	142	75	74	75	76	75	26
IGL241F	142	84	82	77	78	78	21
IGL288F	116	64	67	62	67	72	23
IGL279F	117	73	73	73	72	74	23

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 17-20	GD 20-21
IGL159F NP							
IGL147F	111	77	67	81	79	83	25
IGL150F	131	80	71	76	77	80	23
IGL151F	112	71	75	76	77	82	25
IGL153F	120	68	69	68	67	68	22
IGL157F	121	72	75	73	72	83	27
IGL158F	123	72	75	74	67	76	30
IGL167F	151	84	93	91	90	91	33
IGL168F	114	71	74	77	77	87	32
IGL169F	129	74	80	80	80	81	31
IGL213F	119	71	74	80	80	88	28
IGL162F	118	68	62	64	64	70	22
IGL178F	108	69	66	69	73	82	25
IGL229F	108	70	65	67	71	77	27
IGL254F	142	86	81	95	79	82	28
IGL257F NP							
IGL262F	122	71	66	69	72	73	25
IGL206F	103	68	63	72	73	77	24
IGL204F	144	82	81	82	81	89	30
IGL215F	137	71	73	63	63	75	23
IGL274F	119	67	65	67	70	70	28
IGL223F	133	76	78	80	84	86	23
IGL263F	117	68	66	72	73	77	26
IGL277F	121	72	72	68	74	78	30
IGL269F	107	65	70	74	76	76	23

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 17-20	GD 20-21
IGL173F	109	67	68	69	69	74	23
IGL177F	114	60	56	68	71	77	23
IGL182F	108	56	68	74	78	80	24
IGL143F	118	62	62	66	71	76	21
IGL142F NP							
IGL146F	115	72	72	71	77	82	27
IGL194F	125	65	59	60	65	74	21
IGL166F	125	69	69	73	73	83	27
IGL152F	111	61	63	65	68	73	25
IGL209F	118	64	64	64	67	71	21
IGL196F	119	61	67	69	68	69	24
IGL181F	119	70	66	68	68	77	23
IGL189F	130	74	68	75	79	92	28
IGL191F	99	75	73	76	84	82	27
IGL237F	111	64	57	62	72	80	17
IGL246F	109	68	59	69	73	77	20
IGL216F	128	79	70	80	86	91	25
IGL228F	118	65	61	67	89	74	20
IGL260F	137	81	78	77	75	80	26
IGL208F	117	63	68	71	65	66	21
IGL225F	121	64	63	62	71	72	20
IGL227F	122	63	63	65	75	81	27
IGL236F	116	73	66	69	72	80	26
IGL242F	126	54	73	69	73	83	29
IGL214F	123	75	65	72	78	76	26

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 17-20	GD 20-21
IGL186F	126	65	64	70	73	76	25
IGL145F	105	62	64	56	58	73	19
IGL155F	150	82	80	76	79	88	19
IGL161F	99	64	63	62	68	74	25
IGL163F	110	63	72	65	74	81	24
IGL154F	136	72	76	74	76	71	27
IGL222F D	112	58	62	64	70	72	D
IGL224F	116	63	62	53	66	77	22
IGL183F	120	59	62	59	62	60	15
IGL192F	128	70	70	74	79	86	31
IGL220F	123	56	60	62	69	72	24
IGL221F	138	79	77	78	82	93	28
IGL230F	119	70	62	57	62	71	20
IGL200F	137	67	60	61	62	77	23
IGL234F	126	70	59	60	63	63	21
IGL261F	114	69	60	66	68	82	27
IGL255F	134	59	48	59	67	69	23
IGL266F	101	63	60	62	65	75	23
IGL268F	95	57	60	62	75	75	17
IGL212F	128	68	64	61	67	65	23
IGL232F	120	62	64	65	74	75	24
IGL243F	115	62	51	68	73	80	26
IGL244F	128	68	77	71	64	70	23
IGL282F	128	64	64	58	68	71	S
IGL275F	119	64	62	62	69	77	30

NOTE: GD - GESTATION DAY NP - NOT PREGNANT
S - NOT MEASURED DUE TO EXCESS SPILLAGE B- APPARENT BAD VALUE
D - EARLY DELIVERY

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

TARGET	FEMALES			
	0 MG/M^3	2000MG/M^3	10,000 MG/M^3	20,000 MG/M^3
TOTAL AT TERMINAL SACRIFICE (A)	25	25	25	25
NO OBSERVABLE ABNORMALITIES	24	23	25	24
STOMACH: Placenta, red material	0	0	0	1
GENERAL CONDITIONS: Alopecia Trunk	1	2	0	0
ANIMAL DELIVERED PRIOR TO SCHEDULED C-SECTION	0	0	0	1
NO EVIDENCE OF UTERINE IMPLANTATION SITES	0	2	1	0

NOTE: (A) - INCLUDES NON-PREGNANT ANIMALS

APPENDIX E- GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS)

TARGET DOSE: 0 MG/M^3

IGL176F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL180F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL156F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL160F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL170F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL144F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL148F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL149F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL211F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL172F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL231F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL188F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL226F - GENERAL CONDITION: Alopecia trunk.

IGL248F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL258F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL202F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL252F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL259F - ALL TISSUES AND ORGANS: No observable abnormalities

APPENDIX E- GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS)

TARGET DOSE: 0 MG/M^3

IGL201F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL272F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL207F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL238F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL241F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL288F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL279F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS)

TARGET DOSE: 2000 MG/M^3

IGL159F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of implantation sites.

IGL147F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL150F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL151F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL153F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL157F - GENERAL CONDITION: Alopecia trunk.

IGL158F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL167F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL168F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL169F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL213F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL162F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL178F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL229F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL254F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS)

TARGET DOSE: 2000 MG/M^3

IGL257F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of uterine implantation sites.

IGL262F - GENERAL CONDITION: Alopecia trunk.

IGL206F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL204F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL215F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL274F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL223F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL263F - ALL TISSUES AND ORGANS: No observable abnormalities

IGL277F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL269F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS)

TARGET DOSE: 10,000 MG/M^3

IGL173F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL177F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL182F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL143F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL142F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of uterine implantation sites.

IGL146F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL194F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL166F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL152F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL209F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL196F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL181F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL189F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL191F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL237F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL246F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS)

TARGET GROUP 3: 10,000 MG/M^3

IGL216F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL228F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL260F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL208F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL225F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL227F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL236F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL242F - ALL TISSUES AND ORGANS: No observable abnormalities

IGL214F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS)

TARGET DOSE: 20,000 MG/M^3

IGL186F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL145F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL155F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL161F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL163F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL154F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL222F - EARLY DELIVERY/EUTHANASIA: Gestation Day 20.
STOMACH: Placenta, red material.
GENERAL CONDITION: 8 Live pups delivered.
CORPORA LUTEA (Right): 8 (Left): 8
TERMINAL BODY WEIGHT: 364 grams.

IGL224F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL183F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL192F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL220F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL221F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL230F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL200F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX E- GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS)

TARGET DOSE: 20,000 MG/M^3

IGL234F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL261F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL255F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL266F - ALL TISSUES AND ORGANS: No observable abnormalities

IGL268F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL212F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL232F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL243F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL244F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGL282F - ALL TISSUES AND ORGANS: No observable abnormalities

IGL275F - 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 ON PAGES 5-1 AND 5-2)

FEMALE	Total Live A-L-	Male Fetuses A-L-	Female Fetuses A-L-	Resorptions A-L-	Implantation Sites A-L-	Corpora Lutea A-L-	Total Dead NT	Fetuses/ Implantation A-L-	Resorptions/ Implantation A-L-
0 MG/M^3									
MEAN	14.96	7.36	7.60	0.72	15.68	15.96	0	0.95	0.05
STD.DEV.	3.12	2.45	2.42	0.84	3.09	3.18	0	0.07	0.07
(N)	25	25	25	25	25	25	25	25	25
2000 MG/M^3									
MEAN	14.96	7.26	7.70	0.48	15.43	15.91	0	0.97	0.03
STD.DEV.	2.50	2.75	2.30	0.73	2.5	1.98	0	0.05	0.04
(N)	23	23	23	23	23	23	23	23	23
10000 MG/M^3									
MEAN	15.08	7.21	7.88	0.50	15.58	16.00	0	0.97	0.03
STD.DEV.	1.91	1.86	1.83	0.66	1.89	2.15	0	0.04	0.04
(N)	24	24	24	24	24	24	24	24	24
20000 MG/M^3									
MEAN	15.25	7.42	7.83	0.67	15.92	16.29	0	0.96	0.04
STD.DEV.	2.09	2.57	2.30	1.13	1.79	1.85	0	0.07	0.07
(N)	24	24	24	24	24	24	24	24	24

APPENDIX F - UTERINE IMPLANTATION DATA
(MEAN UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR STATISTICAL SYMBOLS ON PAGES 5-1 AND 5-2)

FEMALE	F/I Tran A-L-	R/I Tran A-L-	D/I Tran K-J-	Dead/ Implantation NT	% Preimplant Loss K-J-	% Postimplant Loss A-L-	Total Malformations A-L-	Total Variations A-L-	Total Affected A-L-
0 MG/M^3									
MEAN	77.306160	12.694280	7.473	0	1.6	5.1	0.24	1.4	1.0
STD.DEV.	6.507916	6.507867	1.521	0	2.7	6.7	0.52	1.6	1.0
(N)	25	25	25	25	25	25	25	25	25
2000 MG/M^3									
MEAN	79.234478	10.765870	7.410	0	3.2	3.0	0.39	1.5	0.9
STD.DEV.	4.713584	4.713377	0.845	0	10.0	4.5	0.66	1.6	0.9
(N)	23	23	23	23	23	23	23	23	23
10000 MG/M^3									
MEAN	79.088917	10.911458	7.317	0	2.3	3.2	0.33	1.3	0.8
STD.DEV.	4.623688	4.623671	0.465	0	4.5	4.2	0.48	1.5	0.8
(N)	24	24	24	24	24	24	24	24	24
20000 MG/M^3									
MEAN	78.415375	11.585000	7.234	0	2.2	4.2	0.33	1.2	1.0
STD.DEV.	6.969206	6.969202	0.417	0	3.9	7.0	0.70	1.2	1.2
(N)	24	24	24	24	24	24	24	24	24

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS ON PAGE G-2 FOR ABBREVIATIONS)
DOSE: 0 MG/M^3

ANIMAL NUMBER	Live	Male	Female	Resorp	Implants	CL	Dead	Mal	Var
IGL176F	15	7	8	0	15	15	0	0	3
IGL180F	13	8	5	0	13	13	0	0	1
IGL156F	14	4	10	0	14	14	0	0	1
IGL160F	15	10	5	2	17	17	0	0	0
IGL170F	15	4	11	1	16	17	0	0	1
IGL144F	19	10	9	1	20	20	0	0	7
IGL148F	17	8	9	2	19	20	0	0	1
IGL149F	15	9	6	1	16	16	0	0	0
IGL211F	17	10	7	1	18	18	0	2	1
IGL172F	18	11	7	0	18	18	0	0	3
IGL231F	16	6	10	0	16	16	0	1	1
IGL188F	15	11	4	0	15	16	0	0	1
IGL226F	17	7	10	1	18	19	0	0	1
IGL248F	3	1	2	1	4	4	0	1	1
IGL258F	12	6	6	3	15	15	0	0	0
IGL202F	17	5	12	1	18	19	0	0	4
IGL252F	17	10	7	0	17	17	0	0	0
IGL259F	14	8	6	2	16	16	0	0	1
IGL201F	14	6	8	0	14	14	0	1	1
IGL272F	15	8	7	0	15	16	0	0	1
IGL207F	12	6	6	1	13	14	0	0	1
IGL238F	16	5	11	1	17	17	0	1	0
IGL241F	19	9	10	0	19	19	0	0	3
IGL288F	15	8	7	0	15	15	0	0	1
IGL279F	14	7	7	0	14	14	0	0	1

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS ON PAGE G-2 FOR ABBREVIATIONS)
DOSE: 0 MG/M^3

ANIMAL NUMBER	F/I Tran	R/I Tran	D/I Tran
IGL176F	82.583	7.418	7.4176
IGL180F	82.029	7.971	7.9712
IGL156F	82.321	7.679	7.6795
IGL160F	69.941	20.06	6.9653
IGL170F	75.523	14.478	7.1808
IGL144F	77.079	12.921	6.4193
IGL148F	71.069	18.932	6.5868
IGL149F	75.523	14.478	7.1808
IGL211F	76.367	13.633	6.7681
IGL172F	83.232	6.768	6.7681
IGL231F	82.82	7.181	7.1808
IGL188F	82.583	7.418	7.4176
IGL226F	76.367	13.633	6.7681
IGL248F	60.000	30.000	14.4776
IGL258F	63.435	26.565	7.4176
IGL202F	76.367	13.633	6.7681
IGL252F	83.035	6.965	6.9653
IGL259F	69.296	20.705	7.1808
IGL201F	82.321	7.679	7.6795
IGL272F	82.583	7.418	7.4176
IGL207F	73.898	16.102	7.9712
IGL238F	75.964	14.036	6.9653
IGL241F	83.414	6.587	6.5868
IGL288F	82.583	7.418	7.4176
IGL279F	82.321	7.679	7.6795

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS ON PAGE G-2 FOR ABBREVIATIONS)
DOSE: 2000 MG/M^3

ANIMAL NUMBER	Live	Male	Female	Resorp	Implants	CL	Dead	Mal	Var
IGL159F NP									
IGL147F	14	4	10	1	15	15	0	0	2
IGL150F	20	13	7	0	20	20	0	0	3
IGL151F	13	6	7	1	14	14	0	0	0
IGL153F	17	5	12	1	18	18	0	0	0
IGL157F	16	10	6	0	16	17	0	0	0
IGL158F	15	12	3	0	15	15	0	1	2
IGL167F	19	7	12	0	19	19	0	0	1
IGL168F	16	9	7	0	16	16	0	1	2
IGL169F	16	4	12	0	16	16	0	0	2
IGL213F	7	1	6	0	7	13	0	1	2
IGL162F	14	8	6	1	15	15	0	0	0
IGL178F	13	8	5	1	14	15	0	0	2
IGL229F	14	5	9	0	14	14	0	0	2
IGL254F	16	7	9	0	16	16	0	0	0
IGL257F NP									
IGL262F	14	8	6	3	17	20	0	1	1
IGL206F	17	10	7	1	18	18	0	0	1
IGL204F	15	9	6	1	16	16	0	0	7
IGL215F	14	8	6	1	15	15	0	0	0
IGL274F	14	5	9	0	14	14	0	0	1
IGL223F	15	8	7	0	15	15	0	0	3
IGL263F	14	5	9	0	14	14	0	2	1
IGL277F	14	6	8	0	14	14	0	2	0
IGL269F	17	9	8	0	17	17	0	1	3

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS ON PAGE G-2 FOR ABBREVIATIONS)
DOSE: 2000 MG/M^3

ANIMAL NUMBER	F/I Tran	R/I Tran	D/I Tran
IGL159F NP			
IGL147F	75.037	14.963	7.4176
IGL150F	83.581	6.419	6.4193
IGL151F	74.499	15.501	7.6795
IGL153F	76.367	13.633	6.7681
IGL157F	82.820	7.181	7.1808
IGL158F	82.583	7.418	7.4176
IGL167F	83.414	6.587	6.5868
IGL168F	82.820	7.181	7.1808
IGL169F	82.820	7.181	7.1808
IGL213F	79.107	10.893	10.8935
IGL162F	75.037	14.963	7.4176
IGL178F	74.499	15.501	7.6795
IGL229F	82.321	7.679	7.6795
IGL254F	82.820	7.181	7.1808
IGL257F NP			
IGL262F	65.160	24.840	6.9653
IGL206F	76.367	13.633	6.7681
IGL204F	75.523	14.478	7.1808
IGL215F	75.037	14.963	7.4176
IGL274F	82.321	7.679	7.6795
IGL223F	82.583	7.418	7.4176
IGL263F	82.321	7.679	7.6795
IGL277F	82.321	7.679	7.6795
IGL269F	83.035	6.965	6.9653

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS ON PAGE G-2 FOR ABBREVIATIONS)
DOSE: 10,000 MG/M^3

ANIMAL NUMBER	Live	Male	Female	Resorp	Implants	CL	Dead	Mal	Var
IGL173F	11	5	6	1	12	12	0	0	2
IGL177F	13	8	5	1	14	14	0	0	2
IGL182F	14	8	6	0	14	16	0	0	0
IGL143F	16	5	11	0	16	16	0	1	1
IGL142F NP									
IGL146F	16	6	10	1	17	17	0	0	1
IGL194F	15	7	8	0	15	17	0	0	3
IGL166F	15	7	8	0	15	15	0	1	1
IGL152F	13	5	8	0	13	13	0	0	0
IGL209F	16	9	7	1	17	17	0	0	0
IGL196F	16	5	11	2	18	21	0	0	1
IGL181F	16	9	7	0	16	16	0	0	4
IGL189F	17	8	9	0	17	18	0	1	2
IGL191F	17	10	7	0	17	18	0	0	0
IGL237F	13	6	7	1	14	15	0	1	1
IGL246F	12	4	8	0	12	12	0	0	1
IGL216F	16	10	6	1	17	17	0	0	0
IGL228F	17	9	8	0	17	17	0	0	0
IGL260F	18	6	12	0	18	18	0	1	3
IGL208F	17	10	7	0	17	17	0	0	0
IGL225F	18	9	9	1	19	19	0	0	2
IGL227F	13	6	7	2	15	15	0	1	0
IGL236F	14	6	8	0	14	14	0	1	1
IGL242F	14	9	5	1	15	15	0	0	1
IGL214F	15	6	9	0	15	15	0	1	6

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS ON PAGE G-2 FOR ABBREVIATIONS)
DOSE: 10,000 MG/M^3

ANIMAL NUMBER		F/I Tran	R/I Tran	D/I Tran
IGL173F		73.222	16.779	8.299
IGL177F		74.499	15.501	7.6795
IGL182F		82.321	7.679	7.6795
IGL143F		82.82	7.181	7.1808
IGL142F	NP			
IGL146F		75.964	14.036	6.9653
IGL194F		82.583	7.418	7.4176
IGL166F		82.583	7.418	7.4176
IGL152F		82.029	7.971	7.9712
IGL209F		75.964	14.036	6.9653
IGL196F		70.529	19.471	6.7681
IGL181F		82.820	7.181	7.1808
IGL189F		83.035	6.965	6.9653
IGL191F		83.035	6.965	6.9653
IGL237F		74.499	15.501	7.6795
IGL246F		81.702	8.299	8.299
IGL216F		75.964	14.036	6.9653
IGL228F		83.035	6.965	6.9653
IGL260F		83.232	6.768	6.7681
IGL208F		83.035	6.965	6.9653
IGL225F		76.738	13.263	6.5868
IGL227F		68.584	21.417	7.4176
IGL236F		82.321	7.679	7.6795
IGL242F		75.037	14.963	7.4176
IGL214F		82.583	7.418	7.4176

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS ON PAGE G-2 FOR ABBREVIATIONS)
DOSE: 20,000 MG/M^3

ANIMAL NUMBER	Live	Male	Female	Resorp	Implants	CL	Dead	Mal	Var
IGL186F	12	10	2	4	16	16	0	0	2
IGL145F	19	15	4	0	19	19	0	0	1
IGL155F	17	10	7	0	17	19	0	1	2
IGL161F	13	9	4	1	14	15	0	0	0
IGL163F	16	7	9	0	16	16	0	0	1
IGL154F	18	9	9	0	18	18	0	0	4
IGL222F D									
IGL224F	14	7	7	0	14	14	0	0	4
IGL183F	16	9	7	0	16	16	0	0	1
IGL192F	17	8	9	2	19	19	0	0	1
IGL220F	17	7	10	0	17	17	0	0	1
IGL221F	18	6	12	0	18	18	0	2	2
IGL230F	16	9	7	0	16	16	0	0	1
IGL200F	13	5	8	1	14	14	0	0	0
IGL234F	16	8	8	0	16	17	0	0	2
IGL261F	14	5	9	0	14	14	0	2	2
IGL255F	16	9	7	0	16	16	0	0	0
IGL266F	13	5	8	0	13	13	0	0	0
IGL268F	17	10	7	0	17	18	0	0	0
IGL212F	12	6	6	1	13	15	0	2	2
IGL232F	14	5	9	3	17	17	0	0	2
IGL243F	15	6	9	2	17	18	0	0	1
IGL244F	17	5	12	0	17	18	0	0	0
IGL282F	12	3	9	2	14	14	0	0	0
IGL275F	14	5	9	0	14	14	0	1	0

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS ON PAGE G-2 FOR ABBREVIATIONS)
DOSE: 20,000 MG/M^3

ANIMAL NUMBER	F/I Tran	R/I Tran	D/I Tran
IGL186F	60.000	30.000	7.1808
IGL145F	83.414	6.587	6.5868
IGL155F	83.035	6.965	6.9653
IGL161F	74.499	15.501	7.6795
IGL163F	82.82	7.181	7.1808
IGL154F	83.232	6.768	6.7681
IGL222F D			
IGL224F	82.321	7.679	7.6795
IGL183F	82.820	7.181	7.1808
IGL192F	71.069	18.932	6.5868
IGL220F	83.035	6.965	6.9653
IGL221F	83.232	6.768	6.7681
IGL230F	82.820	7.181	7.1808
IGL200F	74.499	15.501	7.6795
IGL234F	82.820	7.181	7.1808
IGL261F	82.321	7.679	7.6795
IGL255F	82.820	7.181	7.1808
IGL266F	82.029	7.971	7.9712
IGL268F	83.035	6.965	6.9653
IGL212F	73.898	16.102	7.9712
IGL232F	65.160	24.840	6.9653
IGL243F	69.941	20.06	6.9653
IGL244F	83.035	6.965	6.9653
IGL282F	67.793	22.208	7.6795
IGL275F	82.321	7.679	7.6795

NOTE: NP - ANIMAL NOT PREGNANT D - EARLY DELIVERY

APPENDIX G – FETAL BODY WEIGHT

Fetus Weights (grams)				
Male	Target 0 mg/m^3	Target 2000 mg/m^3	Target 10,000 mg/m^3	Target 20,000 mg/m^3
Mean	5.49	5.48	5.51	5.22
S.D.	0.33	0.43	0.47	0.46
N (litters)	25	23	24	24
Female	Target 0 mg/m^3	Target 2000 mg/m^3	Target 10,000 mg/m^3	Target 20,000 mg/m^3
Mean	5.17	5.23	5.18	4.97
S.D.	0.37	0.43	0.49	0.46
N (litters)	25	23	24	24
Litter Weights (grams)				
	Target 0 mg/m^3	Target 2000 mg/m^3	Target 10,000 mg/m^3	Target 20,000 mg/m^3
Mean	79.70	80.08	80.53	77.61
S.D.	16.96	11.80	9.16	10.25
Mean Litter Size	14.96	14.96	15.08	15.25

APPENDIX G – FETAL BODY WEIGHT

Least Squares Mean Fetal Weight

Exposure Group (mg/m^3)	n litters	n fetuses	observed fetus mean (gm)	Least squares fetus mean (gm)
0	25	374	5.33	5.31
2,000	23	344	5.35	5.37
10,000	24	362	5.34	5.35
20,000	24	366	5.09	5.10*

* statistically significantly different from control, $p<0.05$

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

ANIMAL NUMBER	SEX		Litter Weights		Fetus Weights Males	Fetus Weights Females
IGL176F	M	5.10 5.65 5.17 5.63 5.77 5.63 5.46	80.16	Mean	5.49	5.22
IGL176F	F	5.01 5.62 5.21 5.38 5.16 5.08 4.90 5.39		S.D.	0.26	0.23
IGL180F	M	5.72 5.69 5.33 5.27 5.54 5.73 5.66 5.66	70.12	Mean	5.58	5.10
IGL180F	F	4.76 5.11 5.20 5.45 5.00		S.D.	0.18	0.25
IGL156F	M	5.52 5.92 5.07 5.70	73.07	Mean	5.55	5.09
IGL156F	F	4.15 5.03 5.00 5.42 5.49 5.63 5.22 5.07 4.89 4.96		S.D.	0.36	0.41
IGL160F	M	4.92 5.34 5.44 5.38 5.16 5.34 5.45 5.41 5.37 5.48	80.38	Mean	5.33	5.42
IGL160F	F	5.13 5.57 5.46 5.58 5.35		S.D.	0.17	0.19
IGL170F	M	5.10 5.20 4.95 5.33	76.94	Mean	5.15	5.12
IGL170F	F	5.23 4.81 5.01 5.18 5.38 5.29 5.08 5.03 5.16 5.11 5.08		S.D.	0.16	0.15
IGL144F	M	4.55 4.98 5.24 5.26 5.65 5.02 5.06 4.98 4.90 4.91	92.53	Mean	5.06	4.66
IGL144F	F	4.46 4.30 5.06 4.80 4.64 4.80 4.93 4.49 4.50		S.D.	0.29	0.25
IGL148F	M	5.43 5.22 5.47 5.98 5.65 5.66 5.45 4.84	92.34	Mean	5.46	5.40
IGL148F	F	5.60 5.85 5.59 5.57 5.92 4.69 5.39 5.14 4.89		S.D.	0.34	0.42
IGL149F	M	5.87 5.73 5.69 5.40 5.44 5.59 5.59 5.96 5.56	82.07	Mean	5.65	5.21
IGL149F	F	4.88 5.46 5.16 5.19 5.06 5.49		S.D.	0.19	0.23
IGL211F	M	6.02 5.58 5.95 5.63 5.86 5.81 6.15 5.94 5.59 5.95	95.24	Mean	5.85	5.25
IGL211F	F	4.90 5.05 5.26 5.75 5.53 5.87 4.40		S.D.	0.19	0.52
IGL172F	M	6.24 6.31 5.88 5.12 5.27 5.55 5.34 5.76 5.68 5.37 5.46	100.55	Mean	5.63	5.51
IGL172F	F	5.51 5.91 5.67 5.29 5.35 5.36 5.48		S.D.	0.39	0.22
IGL231F	M	5.00 5.19 4.89 5.55 5.18 5.66	80.46	Mean	5.25	4.90
IGL231F	F	4.84 4.59 5.30 4.92 4.79 5.04 4.44 5.04 5.05 4.98		S.D.	0.30	0.25
IGL188F	M	5.37 5.28 5.68 5.42 5.45 5.77 5.49 5.46 5.48 5.86 5.48	82.14	Mean	5.52	5.35
IGL188F	F	5.18 5.44 5.55 5.23		S.D.	0.18	0.17
IGL226F	M	5.59 5.40 5.97 5.36 5.43 5.73 5.47	91.38	Mean	5.56	5.24
IGL226F	F	5.28 5.59 4.85 5.28 5.09 5.38 5.13 5.45 5.18 5.20		S.D.	0.22	0.21
IGL248F	M	6.30	14.84	Mean	6.30	4.27
IGL248F	F	3.11 5.43		S.D.		1.64
IGL258F	M	4.94 5.27 5.05 5.15 5.30 5.52	61.61	Mean	5.21	5.06
IGL258F	F	4.90 4.73 5.43 5.31 5.03 4.98		S.D.	0.20	0.26

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

ANIMAL NUMBER	SEX													Litter Weights		Fetus Weights Males	Fetus Weights Females
IGL202F	M	5.15	5.15	5.39	4.79	4.50								82.92	Mean	5.00	4.83
IGL202F	F	4.84	4.66	5.41	5.43	5.08	4.96	4.54	4.72	4.51	4.83	4.55	4.41		S.D.	0.35	0.34
IGL252F	M	5.36	6.03	5.76	5.47	6.24	6.05	5.85	5.77	6.00	5.57			97.12	Mean	5.81	5.57
IGL252F	F	5.01	5.38	5.45	5.86	5.48	5.94	5.90							S.D.	0.28	0.34
IGL259F	M	5.76	5.37	5.53	5.55	5.49	5.46	5.28	5.41					74.37	Mean	5.48	5.09
IGL259F	F	5.23	5.19	5.33	4.77	4.81	5.19								S.D.	0.14	0.24
IGL201F	M	5.65	5.74	5.65	5.53	5.34	5.20							75.28	Mean	5.52	5.27
IGL201F	F	4.95	5.38	5.30	5.50	4.92	5.44	5.54	5.14						S.D.	0.21	0.24
IGL272F	M	5.81	5.96	5.61	5.69	5.85	5.41	5.37	5.34					80.42	Mean	5.63	5.05
IGL272F	F	5.17	5.24	5.25	4.94	4.88	5.11	4.79							S.D.	0.24	0.18
IGL207F	M	5.46	5.90	5.68	4.87	5.68	4.65							64.12	Mean	5.37	5.31
IGL207F	F	5.43	5.12	5.40	5.63	4.98	5.32								S.D.	0.50	0.23
IGL238F	M	5.32	5.67	5.45	5.64	5.66								85.79	Mean	5.55	5.28
IGL238F	F	5.17	4.95	5.51	5.22	5.17	5.36	5.06	5.28	5.29	5.29	5.75			S.D.	0.16	0.22
IGL241F	M	5.25	4.98	4.85	5.48	5.41	5.77	5.16	5.30	5.47				98.74	Mean	5.30	5.11
IGL241F	F	5.08	4.94	5.00	4.55	5.27	5.15	5.28	5.18	5.39	5.23				S.D.	0.28	0.24
IGL288F	M	5.81	5.76	6.01	5.54	6.01	5.69	5.75	6.10					85.83	Mean	5.83	5.59
IGL288F	F	5.54	5.41	5.65	5.41	5.63	5.55	5.97							S.D.	0.19	0.19
IGL279F	M	5.62	5.47	5.40	5.30	5.32	5.55	5.50						74.00	Mean	5.45	5.12
IGL279F	F	5.36	4.87	5.21	4.83	5.27	5.28	5.02							S.D.	0.12	0.21
														Mean	79.70		
														S.D.	16.96		

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

ANIMAL NUMBER	SEX		Litter Weights		Fetus Weights Males	Fetus Weights Females
IGL159F	NP					
IGL147F	M	5.74 5.82 5.87 5.80	75.26	Mean	5.81	5.20
IGL147F	F	4.82 5.18 5.19 5.42 5.31 5.30 5.17 5.41 5.16 5.07		S.D.	0.05	0.18
IGL150F	M	4.46 4.74 4.33 5.44 4.34 4.68 5.71 5.27 4.86 5.48 5.04 5.20 5.33	96.75	Mean	4.99	4.55
IGL150F	F	3.78 4.38 4.49 5.13 4.35 4.59 5.15		S.D.	0.46	0.48
IGL151F	M	5.57 5.75 5.64 5.89 5.27 5.38	71.08	Mean	5.58	5.37
IGL151F	F	5.59 5.37 5.46 5.31 5.25 5.58 5.02		S.D.	0.23	0.20
IGL153F	M	5.97 5.54 5.75 5.48 5.67	93.42	Mean	5.68	5.42
IGL153F	F	5.38 5.13 5.39 5.75 5.52 5.59 5.38 5.82 5.14 5.26 5.24 5.41		S.D.	0.19	0.22
IGL157F	M	5.49 5.30 5.55 5.58 4.73 5.56 5.66 5.46 5.21 5.39	84.75	Mean	5.39	5.14
IGL157F	F	5.33 5.21 5.34 4.51 5.17 5.26		S.D.	0.27	0.31
IGL158F	M	5.28 5.08 5.33 5.21 5.50 5.10 5.08 5.42 5.39 5.46 5.18 5.34	78.08	Mean	5.28	4.90
IGL158F	F	4.78 4.84 5.09		S.D.	0.15	0.16
IGL167F	M	5.72 5.60 5.34 5.51 5.67 5.34 5.52	103.30	Mean	5.53	5.38
IGL167F	F	5.24 5.54 5.28 5.08 5.43 5.58 5.50 5.33 5.26 5.57 5.46 5.33		S.D.	0.15	0.15
IGL168F	M	5.54 5.32 5.46 5.19 4.65 4.73 5.53 4.66 4.97	79.31	Mean	5.12	4.75
IGL168F	F	5.19 5.36 5.19 4.84 4.71 5.26 2.71		S.D.	0.37	0.93
IGL169F	M	5.30 5.25 5.18 5.12	81.48	Mean	5.21	5.05
IGL169F	F	4.98 5.17 5.07 5.17 5.46 5.14 4.78 4.57 5.23 4.99 5.02 5.05		S.D.	0.08	0.22
IGL213F	M	6.77	42.56	Mean	6.77	5.97
IGL213F	F	5.70 5.84 5.88 6.17 5.91 6.29		S.D.		0.22
IGL162F	M	5.52 5.62 5.32 5.65 5.52 5.67 5.25 5.47	75.54	Mean	5.50	5.25
IGL162F	F	5.15 5.30 4.97 5.20 5.46 5.44		S.D.	0.15	0.19
IGL178F	M	6.00 6.10 5.74 6.13 5.79 6.44 5.86 6.09	75.22	Mean	6.02	5.41
IGL178F	F	5.65 5.65 5.36 5.32 5.09		S.D.	0.23	0.24
IGL229F	M	5.49 5.86 5.82 5.41 5.63	74.82	Mean	5.64	5.18
IGL229F	F	5.34 5.23 5.34 4.92 5.21 4.49 5.12 5.57 5.39		S.D.	0.20	0.32
IGL254F	M	5.49 5.89 5.93 5.74 5.79 5.59 5.39	87.17	Mean	5.69	5.26
IGL254F	F	5.16 5.08 5.11 5.23 5.49 5.42 5.26 5.40 5.20		S.D.	0.20	0.14

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

ANIMAL NUMBER	SEX											Litter Weights		Fetus Weights Males	Fetus Weights Females
IGL257F	NP														
IGL262F	M	5.41	6.12	6.14	4.76	5.49	6.03	5.74	5.80			77.50	Mean	5.69	5.34
IGL262F	F	4.95	5.24	5.44	5.54	5.46	5.38						S.D.	0.46	0.21
IGL206F	M	5.31	5.41	5.62	5.31	5.05	5.23	5.63	5.56	5.50	5.56	89.97	Mean	5.42	5.11
IGL206F	F	5.01	5.07	4.94	5.47	5.05	5.13	5.12					S.D.	0.19	0.17
IGL204F	M	5.81	6.60	5.91	5.96	6.61	6.49	6.40	6.46	6.74		93.53	Mean	6.33	6.09
IGL204F	F	5.88	6.83	6.32	6.21	5.67	5.64						S.D.	0.34	0.46
IGL215F	M	5.18	5.14	5.43	5.28	5.51	4.94	5.04	4.94			72.80	Mean	5.18	5.22
IGL215F	F	5.13	5.06	5.21	5.27	5.31	5.36						S.D.	0.21	0.11
IGL274F	M	5.34	5.61	5.98	5.41	5.59						76.27	Mean	5.59	5.37
IGL274F	F	5.19	5.34	5.26	5.27	5.25	5.85	5.55	5.25	5.38			S.D.	0.25	0.21
IGL223F	M	5.12	5.27	5.57	5.54	5.24	5.34	5.39	5.48			78.10	Mean	5.37	5.02
IGL223F	F	4.47	4.73	5.20	5.40	5.01	4.93	5.41					S.D.	0.16	0.35
IGL263F	M	5.10	5.86	5.36	5.60	5.28						74.06	Mean	5.44	5.21
IGL263F	F	5.02	5.55	5.33	5.21	4.95	5.09	5.36	5.32	5.03			S.D.	0.30	0.20
IGL277F	M	5.65	5.85	6.01	5.80	5.52	5.67					77.80	Mean	5.75	5.41
IGL277F	F	5.38	5.08	5.44	5.63	5.34	5.48	5.61	5.34				S.D.	0.17	0.17
IGL269F	M	5.24	5.12	5.28	5.15	4.85	4.74	4.86	4.82	5.15		82.98	Mean	5.02	4.72
IGL269F	F	4.65	4.95	5.38	4.82	4.65	4.40	4.71	4.21				S.D.	0.20	0.35
											Mean	80.08			
											S.D.	11.80			

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

ANIMAL NUMBER	SEX		Litter Weights		Fetus Weights Males	Fetus Weights Females
IGL173F	M	5.23 5.55 5.51 5.76 5.38	59.92	Mean	5.49	5.42
IGL173F	F	5.37 5.60 5.23 5.55 5.16 5.58		S.D.	0.20	0.19
IGL177F	M	5.43 5.62 5.68 5.76 5.78 5.73 5.58 5.69	72.30	Mean	5.66	5.41
IGL177F	F	5.49 5.40 5.48 5.41 5.25		S.D.	0.11	0.10
IGL182F	M	5.67 6.20 6.21 6.29 6.10 6.14 6.27 5.98	83.43	Mean	6.11	5.76
IGL182F	F	5.97 5.26 6.18 5.87 5.72 5.57		S.D.	0.20	0.32
IGL143F	M	5.27 5.55 5.38 5.35 5.32	81.86	Mean	5.37	5.00
IGL143F	F	5.10 5.10 5.10 5.14 5.21 3.91 4.94 4.85 5.05 5.22 5.37		S.D.	0.11	0.39
IGL142F	NP					
IGL146F	M	6.14 5.66 5.74 5.78 5.95 5.58	89.87	Mean	5.81	5.50
IGL146F	F	5.48 5.56 5.57 5.19 5.53 5.56 5.85 5.36 5.73 5.19		S.D.	0.20	0.21
IGL194F	M	5.13 5.04 5.13 5.76 5.38 5.26 5.34	78.03	Mean	5.29	5.12
IGL194F	F	5.03 4.89 5.32 5.01 5.25 4.83 5.36 5.30		S.D.	0.24	0.21
IGL166F	M	5.76 6.33 6.03 5.55 5.88 6.03 5.42	83.82	Mean	5.86	5.35
IGL166F	F	5.42 5.46 5.86 5.50 4.71 5.60 5.34 4.93		S.D.	0.31	0.37
IGL152F	M	5.43 5.16 5.46 5.35 5.61	68.60	Mean	5.40	5.20
IGL152F	F	5.24 5.23 4.99 5.15 5.68 5.19 4.93 5.18		S.D.	0.16	0.22
IGL209F	M	5.28 5.30 5.02 5.07 5.10 5.25 4.81 5.32 5.28	81.47	Mean	5.16	5.01
IGL209F	F	4.95 4.90 5.41 5.01 4.88 4.91 4.98		S.D.	0.17	0.18
IGL196F	M	5.22 5.15 5.04 3.92 5.37	78.30	Mean	4.94	4.87
IGL196F	F	4.38 5.09 5.06 5.08 4.38 5.07 4.92 5.07 4.76 5.31 4.48		S.D.	0.58	0.32
IGL181F	M	5.35 5.17 5.28 5.39 5.35 5.27 5.51 5.19 5.30	81.90	Mean	5.31	4.87
IGL181F	F	3.40 5.24 4.97 5.18 5.20 5.04 5.06		S.D.	0.10	0.66
IGL189F	M	5.76 5.57 5.43 5.11 5.70 5.63 5.81 5.86	91.51	Mean	5.61	5.18
IGL189F	F	3.71 5.54 5.61 5.81 5.62 5.52 5.25 5.03 4.55		S.D.	0.24	0.67
IGL191F	M	5.65 5.59 5.61 6.06 5.59 5.99 5.72 5.46 5.67 5.67	93.91	Mean	5.70	5.27
IGL191F	F	4.47 5.45 4.89 5.45 5.63 5.43 5.58		S.D.	0.19	0.43
IGL237F	M	5.08 5.48 5.47 5.70 5.38 5.56	68.01	Mean	5.45	5.05
IGL237F	F	4.41 5.46 4.82 4.81 5.39 5.25 5.20		S.D.	0.21	0.38

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

ANIMAL NUMBER	SEX													Litter Weights		Fetus Weights Males	Fetus Weights Females
IGL246F	M	5.92	5.67	5.58	4.22									64.21	Mean	5.35	5.35
IGL246F	F	5.44	5.33	5.11	5.38	5.44	5.24	5.48	5.40						S.D.	0.77	0.12
IGL216F	M	5.86	4.52	5.64	6.57	6.33	5.69	5.52	4.83	5.69	5.90			90.20	Mean	5.66	5.61
IGL216F	F	5.69	5.59	5.86	5.53	5.32	5.66								S.D.	0.61	0.18
IGL228F	M	5.00	5.34	5.35	5.28	5.02	5.02	5.11	5.09	4.92				84.51	Mean	5.13	4.80
IGL228F	F	4.79	4.79	4.79	5.05	4.74	4.57	4.81	4.84						S.D.	0.16	0.13
IGL260F	M	5.24	5.00	4.93	5.40	5.36	5.29							88.26	Mean	5.20	4.75
IGL260F	F	2.22	4.90	5.02	4.99	5.09	4.88	5.01	5.12	5.37	5.09	4.76	4.59		S.D.	0.19	0.82
IGL208F	M	5.16	5.49	5.63	5.63	5.56	5.46	5.21	5.29	4.91	5.40			88.46	Mean	5.37	4.96
IGL208F	F	5.12	4.87	5.25	4.67	5.04	4.78	4.99							S.D.	0.23	0.20
IGL225F	M	4.95	5.25	5.35	4.66	4.83	4.95	5.09	4.57	4.45				86.55	Mean	4.90	4.72
IGL225F	F	4.82	4.90	4.72	4.71	4.62	4.71	4.69	4.79	4.49					S.D.	0.30	0.12
IGL227F	M	6.30	6.01	6.17	5.49	6.34	5.98							77.70	Mean	6.05	5.92
IGL227F	F	6.02	6.13	5.78	5.59	5.88	5.99	6.02							S.D.	0.31	0.18
IGL236F	M	5.48	5.36	5.51	5.39	5.72	5.50							74.20	Mean	5.49	5.16
IGL236F	F	4.98	5.18	5.28	5.37	5.34	5.20	5.12	4.77						S.D.	0.13	0.20
IGL242F	M	5.60	5.66	5.63	5.49	5.35	5.49	5.28	5.81	4.69				75.07	Mean	5.44	5.21
IGL242F	F	5.15	5.29	5.18	4.89	5.56									S.D.	0.33	0.24
IGL214F	M	6.94	6.85	7.00	6.42	6.77	6.47							90.74	Mean	6.74	5.59
IGL214F	F	5.04	5.31	6.44	5.15	6.50	6.06	6.13	4.92	4.74					S.D.	0.24	0.69
														Mean	80.53		
														S.D.	9.16		

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

ANIMAL NUMBER	SEX																Litter Weights		Fetus Weights Males	Fetus Weights Females
IGL186F	M	5.79	6.06	6.19	5.72	5.42	5.60	5.77	5.25	4.96	5.90						67.89	Mean	5.67	5.62
IGL186F	F	5.68	5.55															S.D.	0.37	0.09
IGL145F	M	4.74	4.98	4.73	5.35	5.33	4.81	4.61	4.58	5.03	5.28	5.19	5.10	5.40	4.83	4.91	94.51	Mean	4.99	4.91
IGL145F	F	5.17	4.92	4.86	4.69													S.D.	0.27	0.20
IGL155F	M	5.37	5.54	5.45	5.44	5.80	5.62	5.70	5.24	5.29	5.02						92.01	Mean	5.45	5.36
IGL155F	F	5.36	5.12	5.30	5.66	5.43	5.23	5.44										S.D.	0.23	0.17
IGL161F	M	5.57	5.68	6.04	5.90	5.93	6.25	5.78	5.67	5.87							76.01	Mean	5.85	5.83
IGL161F	F	5.66	6.16	5.95	5.55													S.D.	0.21	0.28
IGL163F	M	5.88	5.95	5.92	5.98	6.11	5.89	5.79									91.77	Mean	5.93	5.58
IGL163F	F	5.68	5.69	5.63	5.37	5.79	5.31	5.79	5.33	5.66								S.D.	0.10	0.19
IGL154F	M	4.78	4.82	4.83	5.44	5.09	5.22	5.38	4.76	4.78							88.95	Mean	5.01	4.87
IGL154F	F	4.66	5.07	4.73	4.76	4.94	4.92	5.07	4.98	4.72								S.D.	0.28	0.16
IGL222F	D																			
IGL224F	M	5.56	5.15	5.25	5.67	5.32	4.97	5.36									73.33	Mean	5.33	5.15
IGL224F	F	5.16	4.76	5.40	5.14	5.29	5.37	4.93										S.D.	0.24	0.23
IGL183F	M	5.08	4.88	5.15	5.30	5.37	4.98	5.06	5.15	5.13							81.08	Mean	5.12	5.00
IGL183F	F	4.94	5.00	5.07	4.99	4.98	5.02	4.98										S.D.	0.15	0.04
IGL192F	M	5.48	4.99	5.07	5.02	5.46	5.28	5.17	5.29								86.17	Mean	5.22	4.93
IGL192F	F	4.91	3.89	5.03	5.03	5.20	5.29	4.90	5.15	5.01								S.D.	0.19	0.41
IGL220F	M	5.57	5.10	5.74	5.17	5.73	5.67	4.76									87.63	Mean	5.39	4.99
IGL220F	F	4.98	5.23	5.02	4.90	4.74	4.85	5.03	5.03	5.07	5.04							S.D.	0.38	0.13
IGL221F	M	5.15	5.55	5.26	5.16	5.31	4.93										91.59	Mean	5.23	5.02
IGL221F	F	4.73	4.94	5.14	5.25	4.91	5.03	5.06	4.91	5.27	5.25	4.64	5.10					S.D.	0.21	0.20
IGL230F	M	3.49	4.58	4.91	4.31	4.49	3.69	4.61	4.21	4.65							67.56	Mean	4.33	4.09
IGL230F	F	3.40	4.55	4.13	4.07	3.47	4.33	4.67										S.D.	0.47	0.49
IGL200F	M	5.41	5.22	5.40	5.52	5.13											67.84	Mean	5.34	5.15
IGL200F	F	5.23	5.23	5.32	5.18	5.12	5.03	5.22	4.83									S.D.	0.16	0.15
IGL234F	M	5.54	4.43	4.89	5.04	5.56	5.49	5.16	5.24								79.26	Mean	5.17	4.74
IGL234F	F	4.15	3.61	4.75	4.98	4.98	5.37	4.84	5.23									S.D.	0.39	0.58

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

ANIMAL NUMBER	SEX		Litter Weights		Fetus Weights Males	Fetus Weights Females
IGL261F	M	4.72 5.10 4.51 4.26 4.77	62.63	Mean	4.67	4.36
IGL261F	F	4.09 4.06 4.39 4.35 4.27 4.53 4.58 4.50 4.50		S.D.	0.31	0.19
IGL255F	M	4.89 5.35 5.11 5.13 5.37 5.27 4.81 4.87 5.09	79.98	Mean	5.10	4.87
IGL255F	F	5.08 4.88 4.87 5.14 5.11 4.44 4.57		S.D.	0.21	0.27
IGL266F	M	6.03 6.17 5.72 5.42 5.78	73.78	Mean	5.82	5.58
IGL266F	F	5.76 5.81 5.87 4.93 5.49 5.83 5.47 5.50		S.D.	0.29	0.31
IGL268F	M	4.27 5.08 4.87 4.76 4.63 4.37 5.14 4.77 5.28 5.27	81.82	Mean	4.84	4.77
IGL268F	F	4.57 4.47 4.77 4.57 5.05 5.01 4.94		S.D.	0.35	0.24
IGL212F	M	5.32 5.43 5.33 5.08 4.93 5.36	61.43	Mean	5.24	5.00
IGL212F	F	4.61 5.02 5.15 5.13 5.14 4.93		S.D.	0.19	0.21
IGL232F	M	5.29 5.05 5.37 4.75 5.05	69.67	Mean	5.10	4.91
IGL232F	F	4.84 5.15 4.88 4.97 4.86 5.01 4.90 4.94 4.61		S.D.	0.24	0.15
IGL243F	M	5.31 4.96 5.56 5.23 5.54 5.49	78.71	Mean	5.35	5.18
IGL243F	F	4.98 5.28 4.29 5.40 5.15 5.05 6.32 4.91 5.24		S.D.	0.23	0.53
IGL244F	M	4.94 4.94 4.89 4.63 4.28	77.65	Mean	4.74	4.50
IGL244F	F	4.32 4.36 4.56 4.92 4.90 4.44 4.54 4.35 4.75 3.91 4.36 4.56		S.D.	0.29	0.28
IGL282F	M	5.56 5.03 5.50	62.12	Mean	5.36	5.11
IGL282F	F	5.26 5.27 4.96 4.89 5.18 5.11 5.33 5.15 4.88		S.D.	0.29	0.17
IGL275F	M	5.05 5.06 5.41 5.34 5.58	69.13	Mean	5.29	4.74
IGL275F	F	4.29 4.72 4.81 5.28 4.83 4.81 3.99 5.02 4.94		S.D.	0.23	0.39
			Mean 77.61			
			S.D. 10.25			

NOTE: NP- NOT PREGNANT
D - EARLY DELIVERY

APPENDIX H - FETAL OBSERVATIONS
(INCIDENCE OF FETAL OBSERVATIONS BY TARGET DOSE)

DOSE:	0 MG/M^3	2000 MG/M^3	10,000 MG/M^3	20,000 MG/M^3
TOTAL FETUSES WITH EXTERNAL VARIATIONS	0/374	0/344	0/361	0/366
TOTAL LITTERS WITH EXTERNAL VARIATIONS	[0/25]	[0/23]	[0/24]	[0/24]
TOTAL FETUSES WITH EXTERNAL MALFORMATIONS	2/374	1/344	4/361	0/366
TOTAL LITTERS WITH EXTERNAL MALFORMATIONS	[2/25]	[1/23]	[4/24]	[0/24]
TOTAL FETUSES WITH VISCERAL VARIATIONS	1/182	1/173	1/182	2/183
TOTAL LITTERS WITH VISCERAL VARIATIONS	[1/25]	[1/23]	[1/24]	[2/24]
TOTAL FETUSES WITH VISCERAL MALFORMATIONS	4/182	7/173	5/182	8/183
TOTAL LITTERS WITH VISCERAL MALFORMATIONS	[3/25]	[5/23]	[5/24]	[5/24]
TOTAL FETUSES WITH SKELETAL VARIATIONS	34/192	34/171	32/181	27/183
TOTAL LITTERS WITH SKELETAL VARIATIONS	[19/25]	[16/23]	[16/24]	[16/24]
TOTAL FETUSES WITH SKELETAL MALFORMATIONS	0/192	1/171	3/181	0/183
TOTAL LITTERS WITH SKELETAL MALFORMATIONS	[0/25]	[1/23]	[3/24]	[0/24]
EXTERNAL EXAMINATIONS				
- TOTAL FETUSES EXAMINED:	374	344	361	366
- TOTAL LITTERS EXAMINED:	[25]	[23]	[24]	[24]
INDIVIDUAL EXTERNAL OBSERVATIONS				
STUNTED (<4.0 grams)	1	2	5	8
	[1]	[2]	[5]	[5]
ABDOMEN DISCOLORED	0	0	1	0
	[0]	[0]	[1]	[0]

APPENDIX H - FETAL OBSERVATIONS
(INCIDENCE OF FETAL OBSERVATIONS BY TARGET DOSE)

DOSE:	0 MG/M^3	2000 MG/M^3	10,000 MG/M^3	20,000 MG/M^3
INDIVIDUAL EXTERNAL MALFORMATIONS				
ACAUDATE	0 [0]	0 [0]	1 [1]	0 [0]
AGNATHIA	0 [0]	0 [0]	1 [1]	0 [0]
APPARENT MACROPHTHALMIA	0 [0]	0 [0]	1 [1]	0 [0]
EXENCEPHALY	0 [0]	0 [0]	1 [1]	0 [0]
EXOPHTHALMOS	0 [0]	0 [0]	1 [1]	0 [0]
FILAMENTOUS TAIL	0 [0]	0 [0]	1 [1]	0 [0]
MALPOSITIONED EYE	0 [0]	0 [0]	1 [1]	0 [0]
MALPOSITIONED PINNA	0 [0]	0 [0]	1 [1]	0 [0]
MALROTATED HIND PAW	2 [2]	1 [1]	1 [1]	0 [0]
MICROSTOMIA	0 [0]	0 [0]	1 [1]	0 [0]
NARIS ATRESIA	0 [0]	0 [0]	1 [1]	0 [0]

APPENDIX H - FETAL OBSERVATIONS
(INCIDENCE OF FETAL OBSERVATIONS BY TARGET DOSE)

DOSE:	0 MG/M^3	2000 MG/M^3	10,000 MG/M^3	20,000 MG/M^3
INDIVIDUAL EXTERNAL MALFORMATIONS				
OPEN EYE	0	0	1	0
	[0]	[0]	[1]	[0]
SPINA BIFIDA	0	0	1	0
	[0]	[0]	[1]	[0]
VISCERAL EXAMINATIONS				
- TOTAL FETUSES EXAMINED:	182	173	182	183
- TOTAL LITTERS EXAMINED:	[25]	[23]	[24]	[24]
INDIVIDUAL VISCERAL OBSERVATIONS				
ABDOMEN ASCITES	0	0	1	0
	[0]	[0]	[1]	[0]
INDIVIDUAL VISCERAL VARIATIONS				
UMBILICAL ARTERY ARISES FROM LEFT SIDE OF	1	1	1	2
URINARY BLADDER	[1]	[1]	[1]	[2]
INDIVIDUAL VISCERAL MALFORMATIONS				
ATRIA LARGE	0	0	1	0
	[0]	[0]	[1]	[0]
BLADDER MISSHAPEN	0	0	0	1
	[0]	[0]	[0]	[1]
HYDRONEPHROSIS	0	2	1	5
	[0]	[2]	[1]	[3]
HYDROURETER	0	4	1	5
	[0]	[4]	[1]	[4]
MALPOSITIONED KIDNEYS	0	0	1	0
	[0]	[0]	[1]	[0]

APPENDIX H - FETAL OBSERVATIONS
(INCIDENCE OF FETAL OBSERVATIONS BY TARGET DOSE)

DOSE:	0 MG/M^3	2000 MG/M^3	10,000 MG/M^3	20,000 MG/M^3
INDIVIDUAL VISCERAL MALFORMATIONS				
MALPOSITIONED OVARIES	0	0	1	0
	[0]	[0]	[1]	[0]
MALPOSITIONED OVIDUCTS	0	0	1	0
	[0]	[0]	[1]	[0]
MALPOSITIONED TESTIS	1	0	0	0
	[1]	[0]	[0]	[0]
MALPOSITIONED UTERUS	0	0	1	0
	[0]	[0]	[1]	[0]
RETINA FOLD	3	3	1	1
	[2]	[3]	[1]	[1]
SITUS INVERSUS	0	0	1	0
	[0]	[0]	[1]	[0]
TRANSPOSITION OF GREATER VESSELS	0	0	1	0
	[0]	[0]	[1]	[0]
SKELETAL EXAMINATIONS				
- TOTAL FETUSES EXAMINED:	192	171	181	183
- TOTAL LITTERS EXAMINED:	[25]	[23]	[24]	[24]
INDIVIDUAL OSSIFICATION VARIATIONS				
SKULL				
NASALS HYPOPLASTIC	0	0	1	0
	[0]	[0]	[1]	[0]
STERNEBRAE:				
ASYMMETRIC	0	0	2	0
	[0]	[0]	[1]	[0]

APPENDIX H - FETAL OBSERVATIONS
(INCIDENCE OF FETAL OBSERVATIONS BY TARGET DOSE)

DOSE:	0 MG/M^3	2000 MG/M^3	10,000 MG/M^3	20,000 MG/M^3
INDIVIDUAL OSSIFICATION VARIATIONS				
BIFID CENTRA	1 [1]	0 [0]	0 [0]	0 [0]
ADVANCED	2 [2]	0 [0]	0 [0]	0 [0]
UNOSSIFIED	2 [2]	2 [1]	3 [3]	1 [1]
RIBS:				
RUDIMENTARY THORACIC	1 [1]	0 [0]	0 [0]	0 [0]
SHORT LAST RIB THORACIC	0 [0]	2 [1]	1 [1]	0 [0]
RUDIMENTARY LUMBAR	17 [10]	14 [11]	16 [7]	16 [10]
WELL-FORMED LUMBAR	1 [1]	0 [0]	1 [1]	0 [0]
VERTEBRAE:				
THORACIC CENTRA BIFID	11 [9]	15 [10]	9 [5]	10 [6]
THORACIC CENTRA DUMBBELL / 8 SHAPED	1 [1]	3 [1]	2 [2]	1 [1]
THORACIC CENTRA MISSHAPEN	0 [0]	1 [1]	1 [1]	0 [0]
THORACIC CENTRA UNOSSIFIED	0 [0]	0 [0]	1 [1]	0 [0]

APPENDIX H - FETAL OBSERVATIONS
(INCIDENCE OF FETAL OBSERVATIONS BY TARGET DOSE)

DOSE:	0 MG/M^3	2000 MG/M^3	10,000 MG/M^3	20,000 MG/M^3
INDIVIDUAL OSSIFICATION VARIATIONS				
VERTEBRAE				
THORACIC PRESACRAL	1	0	0	0
	[1]	[0]	[0]	[0]
LUMBAR CENTRA BIFID	0	0	2	0
	[0]	[0]	[2]	[0]
LUMBAR CENTRA DUMBBELL / 8 SHAPED	0	1	1	0
	[0]	[1]	[1]	[0]
INDIVIDUAL CARTILAGINOUS STRUCTURAL VARIATIONS				
VERTEBRAE ANLAGE:				
THORACIC CENTRA BIFID	2	2	4	0
	[2]	[2]	[2]	[0]
THORACIC CENTRA DUMBBELL / 8 SHAPED	9	10	8	8
	[7]	[7]	[5]	[5]
MISSHAPEN CENTRA	0	0	1	0
	[0]	[0]	[1]	[0]

APPENDIX H - FETAL OBSERVATIONS
(INCIDENCE OF FETAL OBSERVATIONS BY TARGET DOSE)

DOSE:	0 MG/M^3	2000 MG/M^3	10,000 MG/M^3	20,000 MG/M^3
INDIVIDUAL OSSIFICATION MALFORMATIONS				
SKULL				
MANDIBLE AGENESIS	0	0	1	0
	[0]	[0]	[1]	[0]
MULTIPLE BONES MALFORMED	0	0	1	0
	[0]	[0]	[1]	[0]
RIBS				
AGENESIS	0	0	1	0
	[0]	[0]	[1]	[0]
FUSED	0	0	1	0
	[0]	[0]	[1]	[0]
VERTEBRAE:				
CERVICAL CENTRA MULTIPLE MALFORMED	0	0	1	0
	[0]	[0]	[1]	[0]
THORACIC CENTRA MULTIPLE MALFORMED	0	0	1	0
	[0]	[0]	[1]	[0]
THORACIC CENTRA HEMICENTRA	0	0	1	0
	[0]	[0]	[1]	[0]

APPENDIX H - FETAL OBSERVATIONS
(INCIDENCE OF FETAL OBSERVATIONS BY TARGET DOSE)

DOSE:	0 MG/M^3	2000 MG/M^3	10,000 MG/M^3	20,000 MG/M^3
INDIVIDUAL OSSIFICATION MALFORMATIONS				
VERTEBRAE :				
SACRAL MULTIPLE BONES AGENESIS	0	0	1	0
	[0]	[0]	[1]	[0]
CAUDAL MULTIPLE BONES AGENESIS	0	0	1	0
	[0]	[0]	[1]	[0]
INDIVIDUAL CARTILAGINOUS MALFORMATIONS				
VERTEBRAE:				
CERVICAL CENTRA MULTIPLE MALFORMED	0	0	1	0
	[0]	[0]	[1]	[0]
THORACIC CENTRA MALFORMED, VERTEBRAE	0	0	1	0
IS 1/2 LOWER THAN NORMAL POSITION	[0]	[0]	[1]	[0]
THORACIC CENTRA FUSED	0	0	1	0
	[0]	[0]	[1]	[0]
THORACIC CENTRA MULTIPLE MALFORMED	0	0	1	0
	[0]	[0]	[1]	[0]
LUMBAR ARCH FUSED TO ILIUM	0	1	0	0
	[0]	[1]	[0]	[0]

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL176F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	F	+	+	+	
3	A	F	+			(a)
4	A	F	+	+	+	
5	A	M	+			(b,c)
6	A	F	+	+	+	
7	A	F	+			(a)
8	A	F	+	+	+	
9	A	M	+			+
10C	A	F	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13	A	M	+			+
14	A	M	+	+	+	
15	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/VERTEBRAE (T12): Bifid centra
(c) - SKELETAL/VERTEBRAE (T12 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL180F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	F	+	+	+	
3	A	F	+			+
4	A	M	+	+	+	
5C	A	M	+			(a,b)
6	A	F	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9	A	F	+			+
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) - SKELETAL/VERTEBRAE (T10): Bifid centra
(b) - SKELETAL/VERTEBRAE (T10 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL156F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	F	+	+	+	
3	A	F	+			+
4	A	F	+	+	+	
5	A	F	+			(a)
6	A	F	+	+	+	
7C	A	M	+			+
8	A	F	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	M	+			+
12	A	M	+	+	+	
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) - SKELETAL/STERNEBRAE (VI): Advanced

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL160F

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	F	+			+
2	A	M	+	+	+	
3	A	M	+			+
E						
4	A	F	+	+	+	
E						
5	A	M	+			+
6	A	F	+	+	+	
7	A	M	+			+
8	A	M	+	+	+	
9C	A	M	+			+
10	A	F	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
13	A	M	+			+
14	A	M	+	+	+	
15	A	M	+			+

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

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL170F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	M	+	+	+	
3	A	M	+			+
4	A	F	+	+	+	
5	A	F	+			(a)
6	A	F	+	+	+	
7	A	F	+			+
8C	A	F	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
11	A	F	+			+
E						
12	A	F	+	+	+	
13	A	F	+			+
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

(a) - SKELETAL/STERNEBRAE (V): Unossified

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL144F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			(a)
2	A	F	+	+	+	
3	A	F	+			(a,c)
4	A	M	+	+	+	
5	A	F	+			(a)
6	A	M	+	+	+	
E						
7C	A	M	+			+
8	A	M	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	M	+			(b)
12	A	F	+	+	+	
13	A	F	+			+
14	A	F	+	+	+	
15	A	F	+			(b)
16	A	M	+	+	+	
17	A	M	+			(d)
18	A	M	+	+	+	
19	A	F	+			(b)

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

NOTE: Fetus numbers 7, 13, and 15 found with identification tags detached, numbers arbitrarily assigned for skeletal exams
(a) - SKELETAL/RIBS (L1): Rudimentary; Right
(b) - SKELETAL/RIBS (L1): Rudimentary; Left
(c) - SKELETAL/RIBS (L1): Well-formed; Left
(d) - SKELETAL/VERTEBRAE (T12, T12 Anlage): Bifid centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL148F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	M	+	+	+	
E						
3	A	F	+			+
4	A	M	+	+	+	
5	A	M	+			+
6	A	F	+	+	+	
7C	A	F	+			+
8	A	M	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
E						
11	A	F	+			(a)
12	A	F	+	+	+	
13	A	M	+			+
14	A	F	+	+	+	
15	A	F	+			+
16	A	F	+	+	+	
17	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

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL149F

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	F	+	+	+	
2	A	M	+			+
3	A	F	+	+	+	
4	A	M	+			+
5	A	M	+	+	+	
6	A	M	+			+
7C	A	M	+	+	+	
8	A	F	+			+
9	A	F	+	+	+	
10	A	F	+			+
11	A	M	+	+	+	
12	A	M	+			+
E						
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

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL211F

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

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

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

NOTE:
(A) - HEAD: Retina fold; Bilateral
(B) - HEAD: Retina fold; Left
(c) - SKELETAL/RIBS (L1): Rudimentary; Left

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL172F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			(b,c)
2	A	F	+	+	+	
3	A	M	+			(b,d)
4	A	M	+	+	+	
5	A	F	+			(a)
6C	A	M	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9	A	M	+			+
10	A	M	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
13	A	F	+			+
14	A	M	+	+	+	
15	A	M	+			+
16	A	M	+	+	+	
17	A	M	+			+
18	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; Right
(b) - SKELETAL/VERTEBRAE (T13): Bifid centra
(c) - SKELETAL/VERTEBRAE (T13 Anlage): Dumbbell shaped centra
(d) – SKELETAL/VERTEBRAE (T13 Anlage): Bifid shaped centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL231F

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	+	+	+	
2	A	M	+			+
3	A	M	+	+	+	
4	A	M	+			+
5	A	F	+	+	+	
6	A	F	+			+
7	A	F	(A)	+	+	
8	A	F	+			+
9	A	F	+	+	+	
10	A	F	+			(b,c)
11C	A	F	+	+	+	
12	A	M	+			+
13	A	F	+	+	+	
14	A	F	+			+
15	A	M	+	+	+	
16	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 hindpaw; Right
(b) - SKELETAL/VERTEBRAE (T12): Bifid centra
(c) - SKELETAL/VERTEBRAE (T12 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL188F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	M	+	+	+	
3	A	M	+			+
4	A	M	+	+	+	
5	A	M	+			+
6	A	M	+	+	+	
7	A	M	+			+
8C	A	F	+	+	+	
9	A	F	+			(a)
10	A	F	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13	A	M	+			+
14	A	M	+	+	+	
15	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

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL226F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	F	+	+	+	
3	A	F	+			+
4	A	M	+	+	+	
E						
5	A	M	+			+
6	A	F	+	+	+	
7	A	F	+			+
8C	A	M	+	+	+	
9	A	F	+			+
10	A	F	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
13	A	F	+			+
14	A	F	+	+	+	
15	A	M	+			(a)
16	A	M	+	+	+	
17	A	M	+			+

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

NOTE:
(a) - SKELETAL/STERNEBRAE (VI): Advanced

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL248F

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

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1*	A	F	+			(b,c,d)
EC						
2	A	M	+	+	(A)	
3	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: Malpositioned testis; Left
(b) - SKELETAL/STERNEBRAE (III-IV): Bifid centra
(c) - SKELETAL/STERNEBRAE (V-VI): Unossified
(d) - SKELETAL/VERTEBRAE (T2,8): Dumbbell shaped centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL258F

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	
E						
1	A	M	+			+
2	A	M	+	+	+	
3	A	F	+			+
4	A	F	+	+	+	
E						
5	A	M	+			+
6	A	M	+	+	+	
7C	A	F	+			+
8	A	M	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			+
12	A	F	+	+	+	
E						

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

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL202F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	F	+	+	+	
E						
3	A	M	+			+
4	A	M	+	+	+	
5	A	F	+			+
6C	A	F	+	+	+	
7	A	F	+			(a,b)
8	A	M	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			(c,d)
12	A	F	+	+	+	
13	A	F	+			+
14	A	F	+	+	+	
15	A	F	+			(e)
16	A	M	+	+	+	
17	A	F	+			(f,e)

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

NOTE:
(a) - SKELETAL/RIBS (T14): Rudimentary; Bilateral
(b) - SKELETAL/VERTEBRAE (T14): Presacral
(c) - SKELETAL/VERTEBRAE (T11): Bifid centra
(d) - SKELETAL/VERTEBRAE (T11 Anlage): Dumbbell shaped centra
(e) - SKELETAL/VERTEBRAE (T12 Anlage): Dumbbell shaped centra
(f) - SKELETAL/VERTEBRAE (T12): Bifid centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL252F

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	F	+			+
2	A	M	+	+	+	
3	A	F	+			+
4	A	M	+	+	+	
5	A	M	+			+
6	A	M	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9C	A	M	+			+
10	A	F	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13	A	F	+			+
14	A	M	+	+	+	
15	A	M	+			+
16	A	F	+	+	+	
17	A	M	+			+

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

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL259F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+	+	+	
2	A	M	+			+
3	A	F	+	+	+	
4	A	M	+			+
5	A	M	+	+	+	
6C	A	M	+			+
7	A	M	+	+	+	
8	A	F	+			(a)
E						
E						
9	A	F	+	+	+	
10	A	M	+			+
11	A	F	+	+	+	
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) - SKELETAL/RIBS (L1): Rudimentary; Right

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL201F

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

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+	+	+	
2	A	M	+			+
3	A	F	+	+	+	
4	A	M	+			+
5	A	F	+	+	+	
6	A	M	+			+
7C	A	F	+	+	+	
8	A	M	+			(b)
9	A	F	+	(A)	+	
10	A	F	+			+
11	A	M	+	+	+	
12	A	F	+			+
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) - HEAD: Retina fold; Left
(b) - SKELETAL/RIBS (L1): Rudimentary; Bilateral

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL272F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	M	+	+	+	
3	A	M	+			+
4C	A	F	+	+	+	
5	A	F	+			+
6	A	F	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9	A	M	+			(a,b)
10	A	M	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
13	A	M	+			+
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:
(a) - SKELETAL/VERTEBRAE (T11): Bifid centra
(b) - SKELETAL/VERTEBRAE (T11 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL207F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+	+	+	
2	A	F	+			+
E						
3C	A	M	+	+	+	
4	A	M	+			+
5	A	M	+	+	+	
6	A	F	+			(a)
7	A	F	+	+	+	
8	A	M	+			+
9	A	F	+	+	+	
10	A	F	+			+
11	A	F	+	+	+	
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/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL238F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	F	+	+	+	
3	A	M	+			+
4	A	F	+	+	+	
5	A	M	(A)			+
6	A	M	+	+	+	
7	A	F	+			+
8	A	F	+	+	+	
9	A	F	+			+
10	A	F	+	+	+	
E						
11C	A	F	+			+
12	A	F	+	+	+	
13	A	F	+			+
14	A	F	+	+	+	
15	A	F	+			+
16	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 hindpaw; Right

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL241F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+	+	+	
2	A	M	+			+
3	A	F	+	+	+	
4	A	M	+			+
5	A	M	+	+	+	
6	A	M	+			+
7	A	M	+	+	+	
8	A	F	+			(c,d)
9	A	F	+	+	+	
10	A	F	+			+
11	A	F	+	+	+	
12	A	F	+			+
13C	A	F	+	+	+	
14	A	F	+			+
15	A	M	+	+	+	
16	A	M	+			(a)
17	A	M	+	+	+	
18	A	F	+			(b)
19	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): Rudimentary; Bilateral
(c) - SKELETAL/VERTEBRAE (T10): Bifid centra
(d) - SKELETAL/VERTEBRAE (T10 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL288F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	M	+	+	+	
3	A	M	+			+
4	A	M	+	+	+	
5	A	F	+			+
6	A	M	+	+	+	
7	A	F	+			(a)
8	A	M	+	+	+	
9C	A	M	+			+
10	A	F	+	+	+	
11	A	F	+			+
12	A	F	+	+	+	
13	A	F	+			+
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:
(a) - SKELETAL/RIBS (L1): Rudimentary; Right

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGL279F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+	+	(a)	
2	A	M	+			+
3	A	F	+	+	+	
4	A	M	+			+
5C	A	F	+	+	+	
6	A	F	+			+
7	A	F	+	+	+	
8	A	M	+			+
9	A	F	+	+	+	
10	A	M	+			+
11	A	M	+	+	+	
12	A	M	+			+
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) - ABDOMEN/THORAX: Umbilical artery arises on left side of urinary bladder

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL147F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+	+	+	
2	A	F	+			(a)
3	A	M	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6	A	F	+			+
7	A	F	+	+	+	
8	A	F	+			+
9C	A	F	+	+	+	
10	A	M	+			+
L						
11	A	F	+	+	+	
12	A	F	+			(b,c)
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): Rudimentary; Bilateral
(b) - SKELETAL/VERTEBRAE (T11-12): Bifid centra
(c) - SKELETAL/VERTEBRAE (T11-12 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL150F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2*	A	F	+	+	+	
3	A	M	+			+
4	A	F	+	+	+	
5	A	M	+			+
6	A	F	+	+	+	
7	A	M	+			+
8	A	F	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
13C	A	M	+			+
14	A	F	+	+	+	
15	A	M	+			(a,b,c)
16	A	M	+	+	+	
17	A	M	+			(a,d,e)
18	A	M	+	+	+	
19	A	M	+			(b,c)
20	A	M	+	+	+	

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

NOTE:
* - Stunted
(a) - SKELETAL/RIBS (T13): Short last rib; Right
(b) - SKELETAL/VERTEBRAE (T12): Bifid centra
(c) - SKELETAL/VERTEBRAE (T12 Anlage): Dumbell shaped centra
(d) - SKELETAL/VERTEBRAE (T10): Bifid centra
(e) - SKELETAL/VERTEBRAE (T10 Anlage): Dumbell shaped centra

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL151F

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	
E						
1	A	F	+	+	+	
2	A	F	+			+
3	A	M	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6	A	M	+			+
7C	A	F	+	+	+	
8	A	M	+			+
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

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL153F

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	+	+	+	
2	A	F	+			+
3	A	F	+	+	+	
4	A	M	+			+
5	A	M	+	+	+	
6	A	F	+			+
7	A	F	+	+	+	
8	A	M	+			+
E						
9C	A	F	+	+	+	
10	A	M	+			+
11	A	F	+	+	+	
12	A	F	+			+
13	A	F	+	+	+	
14	A	F	+			+
15	A	F	+	+	+	
16	A	F	+			+
17	A	F	+	+	+	

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

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL157F

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	F	+	+	+	
2	A	M	+			+
3	A	F	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6	A	F	+			+
7	A	M	+	+	+	
8C	A	M	+			+
9	A	M	+	+	+	
10	A	M	+			+
11	A	M	+	+	+	
12	A	M	+			+
13	A	M	+	+	+	
14	A	M	+			+
15	A	M	+	+	+	
16	A	F	+			+

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

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL158F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	F	+	+	+	
3	A	M	+			+
4	A	M	(A)	+	+	
5	A	M	+			(b)
6	A	M	+	+	+	
7	A	M	+			+
8	A	M	+	+	+	
9C	A	M	+			+
10	A	M	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
13	A	F	+			(c)
14	A	M	+	+	+	
15	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 hindpaw; Right
(b) - SKELETAL/RIBS (L1): Rudimentary; Right
(c) - SKELETAL/RIBS (L1): Rudimentary; Left

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL167F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+	+	+	
2	A	M	+			+
3	A	F	+	+	+	
4	A	M	+			+
5	A	F	+	+	+	
6	A	F	+			+
7	A	F	+	+	+	
8	A	M	+			+
9C	A	F	+	+	+	
10	A	F	+			+
11	A	F	+	+	+	
12	A	F	+			+
13	A	F	+	+	+	
14	A	M	+			+
15	A	F	+	+	+	
16	A	M	+			(a)
17	A	F	+	+	+	
18	A	F	+			+
19	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

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL168F

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

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

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

NOTE:
* - Stunted
(A) - ABDOMEN/THORAX: Hydroureter; Bilateral
(B) - ABDOMEN/THORAX: Hydronephrosis; Bilateral
(c) - ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder
(d) - SKELETAL/VERTEBRAE (T12, T12 Anlage): Bifid centra

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL169F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+	+	+	
2	A	F	+			(a)
3	A	M	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6	A	M	+			+
7	A	F	+	+	+	
8C	A	F	+			+
9	A	F	+	+	+	
10	A	F	+			+
11	A	F	+	+	+	
12	A	F	+			+
13	A	F	+	+	+	
14	A	F	+			+
15	A	M	+	+	+	
16	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): Rudimentary; Bilateral
(b) - SKELETAL/RIBS (L1): Rudimentary; Right

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL213F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+	+	(A)	
2	A	F	+			(b)
3	A	M	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6	A	F	+			(c,d)
7C	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: Hydroureter; Left
(b) - SKELETAL/VERTEBRAE (T12, T12 Anlage): Bifid centra
(c) - SKELETAL/VERTEBRAE (T13): Bifid centra
(d) - SKELETAL/VERTEBRAE (T13 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL162F

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	
L						
1	A	F	+			+
2	A	F	+	+	+	
3	A	M	+			+
4	A	M	+	+	+	
5	A	M	+			+
6	A	F	+	+	+	
7	A	M	+			+
8	A	M	+	+	+	
9C	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			+
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: Fetus numbers 5, 7, 11, and 13 found with identification tags detached, numbers arbitrarily assigned for skeletal exams

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL178F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	M	+	+	+	
3	A	F	+			+
4	A	M	+	+	+	
5	A	M	+			+
6	A	M	+	+	+	
7C	A	M	+			+
E						
8	A	F	+	+	+	
9	A	M	+			(a)
10	A	M	+	+	+	
11	A	F	+			+
12	A	F	+	+	+	
13	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): Rudimentary; Bilateral
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL229F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+	+	+	
2	A	M	+			+
3	A	F	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6	A	F	+			+
7C	A	F	+	+	+	
8	A	M	+			+
9	A	M	+	+	+	
10	A	F	+			(a)
11	A	F	+	+	+	
12	A	M	+			(b)
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) - SKELETAL/RIBS (L1): Rudimentary; Left
(b) - SKELETAL/RIBS (L1): Rudimentary; Right

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL254F

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	F	+			+
2	A	F	+	+	+	
3	A	M	+			+
4	A	F	+	+	+	
5	A	F	+			+
6	A	F	+	+	+	
7	A	F	+			+
8C	A	M	+	+	+	
9	A	M	+			+
10	A	M	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13	A	F	+			+
14	A	F	+	+	+	
15	A	M	+			+
16	A	M	+	+	+	

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

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL262F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			(a,b)
2	A	F	+	+	+	
3	A	M	+			(C)
E						
4	A	M	+	+	+	
5	A	F	+			+
6	A	F	+	+	+	
7C	A	M	+			+
8	A	F	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
E						
11	A	M	+			+
12	A	M	+	+	+	
E						
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 (T11): Bifid centra
(b) - SKELETAL/VERTEBRAE (T11 Anlage): Dumbbell shaped centra
(C) - SKELETAL/VERTEBRAE (L6 Arch Anlage): Fused to ilium; Right

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL206F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	M	+	+	+	
3	A	F	+			+
4	A	F	+	+	+	
5	A	M	+			+
6	A	M	+	+	+	
7	A	M	+			(a)
8	A	F	+	+	+	
9	A	M	+			+
EC						
10	A	M	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13	A	M	+			+
14	A	M	+	+	+	
15	A	F	+			+
16	A	F	+	+	+	
17	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

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL204F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			(c)
2	A	M	+	+	+	
3	A	M	+			(d)
4	A	M	+	+	+	
5	A	F	+			(d)
6	A	M	+	+	+	
7	A	M	+			(b)
8	A	M	+	+	+	
9C	A	F	+			(c,e)
10	A	F	+	+	+	
11	A	M	+			+
E						
12	A	M	+	+	+	
13	A	F	+			(a)
14	A	F	+	+	+	
15	A	F	+			(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 (V): Unossified
(b) - SKELETAL/RIBS (L1): Rudimentary; Left
(c) - SKELETAL/VERTEBRAE (T12): Bifid centra
(d) - SKELETAL/VERTEBRAE (T8): Dumbbell shaped centra
(e) - SKELETAL/VERTEBRAE (T12 Anlage): Dumbbell shaped centra
(f) - SKELETAL/VERTEBRAE (T9): Dumbbell shaped centra

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL215F

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	F	+	+	+	
2	A	F	+			+
3	A	M	+	+	+	
4	A	M	+			+
5	A	F	+	+	+	
6C	A	M	+			+
7	A	F	+	+	+	
8	A	M	+			+
9	A	F	+	+	+	
10	A	F	+			+
11	A	M	+	+	+	
12	A	M	+			+
E						
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

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL274F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	F	+	+	+	
3	A	F	+			(a)
4	A	F	+	+	+	
5	A	M	+			+
6	A	F	+	+	+	
7	A	M	+			+
8C	A	F	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
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:
(a) - SKELETAL/VERTEBRAE (T12): Bifid centra

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL223F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+	+	+	
2	A	M	+			+
3	A	F	+	+	+	
4	A	M	+			+
5	A	M	+	+	+	
6	A	M	+			+
7	A	M	+	+	+	
8	A	M	+			(b)
9	A	F	+	+	+	
10C	A	M	+			(a)
11	A	F	+	+	+	
12	A	F	+			(c,d)
13	A	F	+	+	+	
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:
(a) - SKELETAL/RIBS (L1): Rudimentary; Left
(b) - SKELETAL/VERTEBRAE (T8): Misshapen centra
(c) - SKELETAL/VERTEBRAE (T12): Bifid centra
(d) - SKELETAL/VERTEBRAE (T12 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL263F

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

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+	+	+	
2	A	M	+			+
3	A	F	+	(B)	+	
4	A	F	+			+
5	A	F	+	+	+	
6	A	M	+			+
7	A	F	+	+	+	
8C	A	F	+			(c)
9	A	F	+	+	+	
10	A	M	+			+
11	A	M	+	+	(A)	
12	A	F	+			+
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) - ABDOMEN/THORAX: Hydroureter; Bilateral
(B) - HEAD: Retina fold; Right
(c) - SKELETAL/RIBS (L1): Rudimentary; Bilateral

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL277F

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

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+	+	+	
2	A	F	+			+
3	A	M	+	(C)	+	
4	A	M	+			+
5	A	M	+	+	+	
6	A	F	+			+
7	A	M	+	+	+	
8	A	F	+			+
9	A	F	+	+	+	
10C	A	M	+			+
11	A	F	+	+	(A,B)	
12	A	M	+			+
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) - ABDOMEN/THORAX: Hydroureter; Bilateral
(B) - ABDOMEN/THORAX: Hydronephrosis; Right
(C) - HEAD: Retina fold; Left

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGL269F

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

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

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

NOTE:
(A) - HEAD: Retina fold; Right
(b) - SKELETAL/RIBS (L1): Rudimentary; Right
(c) - SKELETAL/VERTEBRAE (T11): Bifid centra
(d) - SKELETAL/VERTEBRAE (T11 Anlage): Dumbbell shaped centra
(e) - SKELETAL/VERTEBRAE (T12): Bifid centra
(f) - SKELETAL/VERTEBRAE (T12 Anlage): Dumbbell shaped centra
(g) - SKELETAL/VERTEBRAE (L1): Dumbbell shaped centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL173F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+	+	+	
2	A	F	+			(a)
3	A	M	+	+	+	
4	A	F	+			(a)
5	A	M	+	+	+	
6	A	M	+			+
7	A	M	+	+	+	
8	A	F	+			+
9C	A	F	+	+	+	
10	A	F	+			+
L						
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

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL177F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+	+	+	
2	A	M	+			+
3	A	M	+	+	+	
4	A	M	+			+
5	A	F	+	+	+	
6	A	M	+			+
7	A	F	+	+	+	
8C	A	M	+			(a,b)
9	A	F	+	+	+	
10	A	F	+			+
11	A	M	+	+	+	
12	A	F	+			(c)
13	A	M	(-)	+	+	
L						

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

NOTE:
(-) - Not recorded due to oversight
(a) - SKELETAL/VERTEBRAE (T11): Bifid centra
(b) - SKELETAL/VERTEBRAE (T11 Anlage): Dumbbell shaped centra
(c) - SKELETAL/VERTEBRAE (T12 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL182F

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	+			+
2	A	M	+	+	+	
3	A	M	+			+
4C	A	F	+	+	+	
5	A	M	+			+
6	A	M	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			+
12	A	F	+	+	+	
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

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL143F

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

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+	+	+	
2	A	F	+			+
3	A	F	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6	A	M	+			+
7	A	M	+	+	+	
8C*	A	F	(**,A)	+	(***, B,C,D,E)	
9	A	M	+	+	+	
10	A	F	+			(f)
11	A	F	+	+	+	
12	A	M	+			+
13	A	M	+	+	+	
14	A	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:
* - Stunted
(**) - EXTERNAL: Abdomen appears dark
(A) - EXTERNAL: Filamentous tail
(***) - ABDOMEN/THORAX: Fluid-filled abdomen (ascites)
(B) - ABDOMEN/THORAX: Malpositioned kidney; Bilateral
(C) - ABDOMEN/THORAX: Malpositioned uterus
(D) - ABDOMEN/THORAX: Malpositioned ovary; Bilateral
(E) - ABDOMEN/THORAX: Malpositioned oviduct; Bilateral
(f) - SKELETAL/RIBS (L1): Rudimentary; Left

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL146F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	M	+	+	+	
3	A	M	+			+
4	A	F	+	+	+	
5	A	M	+			(a)
6	A	F	+	+	+	
7	A	F	+			+
E						
8C	A	M	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			+
12	A	F	+	+	+	
13	A	M	+			+
14	A	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:
(a) - SKELETAL/VERTEBRAE (T9): Dumbbell shaped centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL194F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	M	+	+	+	
3	A	F	+			(a)
4	A	F	+	+	+	
5	A	M	+			(a)
6	A	F	+	+	+	
7C	A	F	+			+
8	A	M	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13	A	M	+			+
14	A	F	+	+	+	
15	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): Rudimentary; Left

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL166F

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

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	M	+	+	+	
3	A	F	+			+
4	A	F	+	+	+	
5	A	M	+			+
6	A	F	+	+	(A)	
7	A	M	+			+
8C	A	M	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
11	A	M	+			(b)
12	A	F	+	+	+	
13	A	F	+			+
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:
(A) - ABDOMEN/THORAX: Atria large; Bilateral
(b) - SKELETAL/RIBS (L1): Rudimentary; Left

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL152F

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	+			+
2	A	M	+	+	+	
3	A	M	+			+
4	A	F	+	+	+	
5	A	F	+			+
6	A	F	+	+	+	
7C	A	M	+			+
8	A	F	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
11	A	F	+			+
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

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL209F

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	+	+	+	
2	A	F	+			+
3	A	M	+	+	+	
4	A	M	+			+
5	A	F	+	+	+	
6	A	F	+			+
7	A	M	+	+	+	
8	A	F	+			+
9	A	M	+	+	+	
10C	A	M	+			+
11	A	M	+	+	+	
12	A	M	+			+
13	A	F	+	+	+	
14	A	F	+			+
15	A	M	+	+	+	
16	A	F	+			+
E						

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

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL196F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	M	+	+	+	
3	A	F	+			(a)
4	A	F	+	+	+	
5	A	F	+			+
6	A	F	+	+	+	
7	A	F	+			+
8C	A	F	+	+	+	
E						
E						
9	A	M	+			+
10	A	F	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13*	A	M	+			+
14	A	M	+	+	+	
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:
* - Stunted
(a) - SKELETAL/STERNEBRAE (VI): Unossified

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL181F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1*	A	F	+	+	+	
2	A	M	+			(a)
3	A	F	+	+	+	
4	A	F	+			(b)
5	A	M	+	+	+	
6	A	M	+			(b)
7	A	M	+	+	+	
8	A	F	+			(c)
9C	A	M	+	+	+	
10	A	F	+			+
11	A	F	+	+	+	
12	A	M	+			+
13	A	M	+	+	+	
14	A	M	+			+
15	A	M	+	+	+	
16	A	F	+			+

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

NOTE:
* - Stunted
(a) - SKELETAL/RIBS (L1): Rudimentary; Right
(b) - SKELETAL/RIBS (L1): Rudimentary; Left
(c) - SKELETAL/RIBS (L1): Rudimentary; Bilateral

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL189F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+	+	+	
2	A	M	+			(a)
3	A	M	+	+	+	
4*	A	F	+			(b,c,d,E,f,g,H)
5	A	M	+	+	+	
6	A	M	+			+
7C	A	F	+	+	+	
8	A	M	+			+
9	A	F	+	+	+	
10	A	F	+			+
11	A	M	+	+	+	
12	A	M	+			+
13	A	F	+	+	+	
14	A	F	+			+
15	A	F	+	+	+	
16	A	F	+			+
17	A	F	+	+	+	

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

NOTE: Fetus numbers 14 and 16 found with identification tags detached, numbers
arbitrarily assigned for skeletal exams
* - Stunted
(a) - SKELETAL/STERNEBRAE (III-V): Asymmetric form
(b) - SKELETAL/STERNEBRAE (II-IV): Asymmetric form
(c) - SKELETAL/STERNEBRAE (V-VI): Unossified
(d) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(E) - SKELETAL/VERTEBRAE (T5): Hemicentra
(f) - SKELETAL/VERTEBRAE (T6 Anlage): Misshapen centra
(g) - SKELETAL/VERTEBRAE (T5 Anlage): Bifid centra
(H) - SKELETAL/VERTEBRAE (T4-5 Anlage): Fused centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL191F

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	+	+	+	
2	A	M	+			+
3	A	M	+	+	+	
4	A	M	+			+
5	A	M	+	+	+	
6	A	M	+			+
7C	A	F	+	+	+	
8	A	F	+			+
9	A	M	+	+	+	
10	A	M	+			+
11	A	F	+	+	+	
12	A	F	+			+
13	A	F	+	+	+	
14	A	F	+			+
15	A	M	+	+	+	
16	A	M	+			+
17	A	F	+	+	+	

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

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL237F

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: 1

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	(A)			(b,C,D,E)
2	A	M	+			+
3	A	M	+	+	+	
E						
4	A	M	+			+
5	A	M	+	+	+	
6	A	F	+			+
7	A	F	+	+	+	
8	A	F	+			+
9	A	M	+	+	+	
10C	A	M	+			+
11	A	F	+	+	+	
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) - EXTERNAL: Acaudate
(b) - SKELETAL/VERTEBRAE (T6): Unossified centra
(C) - SKELETAL/VERTEBRAE (T6 Anlage): Malformed; vertebrae is 1/2 lower than normal position.
(D) - SKELETAL/VERTEBRAE (S): Multiple bones agenesis
(E) - SKELETAL/VERTEBRAE (CA): Multiple bones agenesis

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL246F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	F	+	+	+	
3	A	F	+			+
4	A	F	+	+	+	
5	A	F	+			(a,b)
6	A	M	+	+	+	
7C	A	F	+			+
8	A	F	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			+
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/VERTEBRAE (T12): Bifid centra
(b) - SKELETAL/VERTEBRAE (T12 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL216F

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	+			+
E						
2	A	M	+	+	+	
3	A	F	+			+
4	A	F	+	+	+	
5	A	F	+			+
6	A	F	+	+	+	
7	A	M	+			+
8C	A	M	+	+	+	
9	A	M	+			+
10	A	M	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13	A	M	+			+
14	A	M	+	+	+	
15	A	F	+			+
16	A	M	+	+	+	

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

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL228F

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	F	+			+
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	M	+	+	+	
13	A	F	+			+
14	A	F	+	+	+	
15	A	F	+			+
16	A	M	+	+	+	
17	A	M	+			+

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

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL260F

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

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1*	A	F	(A,B,C,D,E,F,G,H,I,J)	(**)	(K,L,m)	(N,o,P,q,R,S,T,u,X,Y,bb)
2	A	M	+	+	+	
3	A	F	+			+
4	A	M	+	+	+	
5	A	F	+			+
6	A	F	+	+	+	
7	A	M	+			(v)
8	A	F	+	+	+	
9	A	F	+			+
10	A	F	+	+	+	
11C	A	F	+			(w,z,aa)
12	A	M	+	+	+	
13	A	M	+			+
14	A	F	+	+	+	
15	A	F	+			+
16	A	F	+	+	+	
17	A	F	+			+
18	A	M	+	+	+	

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

NOTE:
* - Stunted
(A) - EXTERNAL: Spina Bifida
(B) - EXTERNAL: Exencephaly
(C) - EXTERNAL: Naris Atresia
(D) - EXTERNAL: Agnathia
(E) - EXTERNAL: Exophthalmos; Left
(F) - EXTERNAL: Malpositioned eye; Left
(G) - EXTERNAL: Open Eye; Left
(H) - EXTERNAL: Apparent macrophthalmia; Left
(I) - EXTERNAL: Malpositioned pinna; Bilateral
(J) - EXTERNAL: Microstomia
(K) - ABDOMEN/THORAX: Situs inversus (abdomen)
(L) - ABDOMEN/THORAX: Transposition of great vessels
(m) - ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder
(N) - SKELETAL/SKULL: Multiple bones malformed
(o) - SKELETAL/SKULL (Nasal): Hypoplastic; Bilateral
(P) - SKELETAL/SKULL (Mandible): Agenesis; Bilateral
(q) - SKELETAL/STERNEBRAE (V): Unossified
(R) - SKELETAL/RIBS (T3-4): Fused; Left
(S) - SKELETAL/RIBS (T5-6): Fused; Left
(T) - SKELETAL/RIBS (T11): Agenesis; Left
(u) - SKELETAL/RIBS (L1): Rudimentary; Left
(v) - SKELETAL/RIBS (L1): Rudimentary; Right
(w) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(X) - SKELETAL/VERTEBRAE (CE,CE Anlage): Multiple bones malformed
(Y) - SKELETAL/VERTEBRAE (T,T Anlage): Multiple bones malformed
(z) - SKELETAL/VERTEBRAE (T13): Bifid centra
(aa) - SKELETAL/VERTEBRAE (T13 Anlage): Dumbbell shaped centra
(bb) - SKELETAL/VERTEBRAE (L1): Bifid centra
(**) - No head exam performed

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL208F

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	+			+
2	A	F	+	+	+	
3	A	M	+			+
4	A	F	+	+	+	
5	A	F	+			+
6C	A	F	+	+	+	
7	A	M	+			+
8	A	M	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13	A	F	+			+
14	A	M	+	+	+	
15	A	M	+			+
16	A	M	+	+	+	
17	A	M	+			+

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

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL225F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+	+	+	
2	A	F	+			+
3	A	M	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6C	A	M	+			+
7	A	M	+	+	+	
8	A	M	+			+
9	A	F	+	+	+	
E						
10	A	M	+			+
11	A	F	+	+	+	
12	A	M	+			+
13	A	F	+	+	+	
14	A	M	+			(a)
15	A	F	+	+	+	
16	A	F	+			+
17	A	M	+	+	+	
18	A	M	+			(a)

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

NOTE: Fetus numbers 2, 8, and 12 found with identification tags detached, numbers arbitrarily assigned for skeletal exams.
(a) - SKELETAL/RIBS (L1): Rudimentary; Bilateral

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL227F

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

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+	+	(A,B)	
2	A	F	+			+
3	A	M	+	+	+	
4	A	F	+			+
E						
5	A	F	+	+	+	
6C	A	F	+			+
7	A	M	+	+	+	
8	A	M	+			+
9	A	M	+	+	+	
L						
10	A	F	+			+
11	A	F	+	+	+	
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) - ABDOMEN/THORAX: Hydroureter; Bilateral
(B) - ABDOMEN/THORAX: Hydronephrosis; Bilateral

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL236F

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	+			+
2	A	M	(A)	+	+	
3	A	M	+			+
4	A	F	+	+	+	
5	A	M	+			+
6	A	M	+	+	+	
7C	A	F	+			+
8	A	M	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
11	A	F	+			+
12	A	F	+	+	+	
13	A	F	+			(b)
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 hindpaw; Right
(b) - SKELETAL/VERTEBRAE (T5): Misshapen centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL242F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	F	+	+	+	
3	A	M	+			+
4	A	M	+	+	+	
5	A	M	+			+
6	A	F	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9C	A	M	+			+
E						
10	A	M	+	+	+	
11	A	M	+			(a,b)
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) - SKELETAL/VERTEBRAE (T11): Bifid centra
(b) - SKELETAL/VERTEBRAE (T11 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGL214F

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

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

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

NOTE:
(A) - HEAD: Retina fold; Left
(b) - SKELETAL/RIBS (T13): Short last rib; Right
(c) - SKELETAL/VERTEBRAE (T12): Bifid centra
(d) - SKELETAL/VERTEBRAE (T12 Anlage): Dumbbell shaped centra
(e) - SKELETAL/VERTEBRAE (T11): Bifid centra
(f) - SKELETAL/VERTEBRAE (T11 Anlage): Dumbbell shaped centra
(g) - SKELETAL/VERTEBRAE (T8): Dumbbell shaped centra
(h) - SKELETAL/VERTEBRAE (T11-12, T11-12 Anlage): Bifid centra
(i) - SKELETAL/VERTEBRAE (T11, T11 Anlage): Bifid centra
(j) - SKELETAL/VERTEBRAE (T13): Bifid centra
(k) - SKELETAL/VERTEBRAE (T13 Anlage): Dumbbell shaped centra
(l) - SKELETAL/VERTEBRAE (T9-10, T9-10 Anlage): Bifid centra
(m) - SKELETAL/VERTEBRAE (L1): Dumbbell shaped centra
(n) - SKELETAL/VERTEBRAE (L2): Bifid centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL186F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	M	+	+	+	
3	A	M	+			+
4	A	F	+	+	+	
E						
5	A	F	+			+
6	A	M	+	+	+	
7	A	M	+			(a)
8C	A	M	+	+	+	
9	A	M	+			(b)
10	A	M	+	+	+	
E						
E						
E						
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; Bilateral
(b) - SKELETAL/RIBS (L1): Rudimentary; Left

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL145F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+	+	+	
2	A	F	+			+
3	A	M	+	+	+	
4	A	M	+			+
5	A	M	+	+	+	
6	A	F	+			+
7	A	M	+	+	+	
8	A	M	+			+
9	A	M	+	+	+	
10	A	M	+			+
11C	A	M	+	+	+	
13	A	M	+			(a)
13	A	M	+	+	+	
14	A	M	+			+
15	A	M	+	+	+	
16	A	F	+			+
17	A	M	+	+	+	
18	A	M	+			+
19	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

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL155F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+	+	+	
2	A	F	+			+
3	A	F	+	+	+	
4	A	M	+			+
5	A	M	+	(A)	+	
6	A	M	+			+
7	A	M	+	+	+	
8C	A	M	+			(b)
9	A	M	+	+	+	
10	A	M	+			+
11	A	M	+	+	+	
12	A	F	+			(c)
13	A	F	+	+	+	
14	A	F	+			+
15	A	F	+	+	+	
16	A	F	+			+
17	A	M	+	+	+	

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

NOTE:
(A) - HEAD: Retina fold; Right
(b) - SKELETAL/RIBS (L1): Rudimentary; Right
(c) - SKELTAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL161F

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	+	+	+	
2	A	M	+			+
3	A	M	+	+	+	
4	A	M	+			+
5	A	M	+	+	+	
6	A	M	+			+
7	A	F	+	+	+	
8	A	M	+			+
EC						
9	A	M	+	+	+	
10	A	F	+			+
11	A	F	+	+	+	
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

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL163F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+	+	+	
2	A	F	+			+
3	A	F	+	+	+	
4	A	M	+			(a)
5	A	M	+	+	+	
6	A	F	+			+
7C	A	M	+	+	+	
8	A	M	+			+
9	A	F	+	+	+	
10	A	M	+			+
11	A	F	+	+	+	
12	A	F	+			+
13	A	M	+	+	+	
14	A	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:
(a) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL154F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	F	+	+	+	
3	A	M	+			+
4	A	F	+	+	+	
5	A	F	+			+
6	A	M	+	+	+	
7	A	F	+			+
8	A	F	+	+	+	
9	A	F	+			(a)
10C	A	F	+	+	+	
11	A	M	+			(b)
12	A	M	+	+	+	
13	A	F	+			(c)
14	A	M	+	+	+	
15	A	M	+			(a)
16	A	M	+	+	+	
17	A	M	+			+
18	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): Rudimentary; Right
(c) - SKELETAL/RIBS (L1): Rudimentary; Left

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL222F

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				
2	A	F				
3	A	M				
4	A	M				
E						
5	A	M				
6	A	M				
7C	A	F				
8	A	F				
9	A	M				
10	A	M				
11	A	F				
12	A	F				
13	A	F				
E						
E						

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

NOTE: Animal delivered 8 pups prior to scheduled c-section.

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL224F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			(a)
2	A	F	+	+	+	
3	A	M	+			(b,c)
4	A	M	+	+	+	
5C	A	F	+			(a,d)
6	A	M	+	+	+	
7	A	F	+			(a,d)
8	A	F	+	+	+	
9	A	F	+			+
10	A	F	+	+	+	
11	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 (T10): Bifid centra
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra
(c) - SKELETAL/VERTEBRAE (T11 Anlage): Dumbbell shaped centra
(d) - SKELETAL/VERTEBRAE (T10 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL183F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+	+	+	
2	A	M	+			+
3	A	M	+	+	+	
4	A	F	+			+
5	A	M	+	+	+	
6	A	F	+			+
7	A	M	+	+	+	
8	A	M	+			+
9C	A	F	+	+	+	
10	A	F	+			(a)
11	A	M	+	+	+	
12	A	F	+			+
13	A	M	+	+	+	
14	A	M	+			+
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:
(a) - SKELETAL/RIBS (L1): Rudimentary; Bilateral

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL192F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
E						
2	A	F	+	+	+	
3	A	M	+			+
4*	A	F	+	+	+	
5	A	M	+			+
6	A	M	+	+	+	
7	A	F	+			+
8C	A	M	+	+	+	
9	A	F	+			+
10	A	F	+	+	+	
11	A	M	+			(a)
12	A	F	+	+	+	
13	A	M	+			+
14	A	M	+	+	+	
15	A	F	+			+
16	A	F	+	+	+	
E						
17	A	F	+			+

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

NOTE:
* - Stunted
(a) - SKELETAL/RIBS (L1) Rudimentary; Right

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL220F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	M	+	+	+	
3	A	F	+			+
4	A	F	+	+	+	
5	A	M	+			+
6	A	F	+	+	+	
7	A	F	+			+
8C	A	F	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13	A	M	+			(a,b)
14	A	F	+	+	+	
15	A	M	+			+
16	A	F	+	+	+	
17	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/VERTEBRAE (T4): Dumbbell shaped centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL221F

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

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	M	+	+	+	
3	A	F	+			+
4	A	M	+	+	+	
5	A	F	+			(f)
6	A	F	+	+	+	
7	A	M	+			+
8	A	F	+	+	(A,C,e)	
9	A	M	+			+
10C	A	M	+	+	+	
11	A	F	+			+
12	A	F	+	+	+	
13	A	F	+			+
14	A	M	+	+	+	
15	A	F	+			+
16	A	F	+	+	(B,D)	
17	A	F	+			+
18	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: Hydroureter; Left
(B) - ABDOMEN/THORAX: Hydroureter; Bilateral
(C) - ABDOMEN/THORAX: Hydronephrosis; Left
(D) - ABDOMEN/THORAX: Hydronephrosis; Bilateral
(e) - ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder
(f) - SKELETAL/VERTEBRAE (T12 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL230F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1*	A	M	+			+
2*	A	F	+	+	+	
3	A	F	+			+
4	A	F	+	+	+	
5	A	M	+			+
6	A	M	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9C*	A	F	+			+
10	A	F	+	+	+	
11	A	M	+			+
12*	A	M	+	+	+	
13	A	F	+			(a)
14	A	M	+	+	+	
15	A	M	+			+
16	A	M	+	+	+	

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

NOTE:
* - Stunted
(a) - SKELETAL/STERNEBRAE (VI): Unossified

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL200F

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	F	+			+
2	A	M	+	+	+	
3	A	F	+			+
4	A	F	+	+	+	
5	A	F	+			+
6	A	F	+	+	+	
7	A	M	+			+
8	A	F	+	+	+	
9C	A	M	+			+
10	A	F	+	+	+	
E						
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

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL234F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			(a)
2	A	M	+	+	+	
3*	A	F	+			(b)
4	A	M	+	+	+	
5	A	F	+			+
6	A	F	+	+	+	
7	A	M	+			+
8	A	M	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13	A	F	+			+
14C	A	M	+	+	+	
15	A	F	+			+
16	A	M	+	+	+	

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

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

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL261F

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

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

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

NOTE:
(A) - ABDOMEN/THORAX: Hydronephrosis, Bilateral
(B) - ABDOMEN/THORAX: Hydroureter; Bilateral
(C) - ABDOMEN/THORAX: Bladder misshapen (base extends 2/3 up bladder)
(d) - SKELETAL/RIBS (L1): Rudimentary; Bilateral

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL255F

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	F	+	+	+	
2	A	F	+			+
3	A	F	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6	A	M	+			+
7C	A	M	+	+	+	
8	A	M	+			+
9	A	M	+	+	+	
10	A	M	+			+
11	A	M	+	+	+	
12	A	M	+			+
13	A	F	+	+	+	
14	A	M	+			+
15	A	F	+	+	+	
16	A	M	+			+

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

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL266F

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	F	+			+
2	A	M	+	+	+	
3	A	F	+			+
4	A	M	+	+	+	
5	A	M	+			+
6	A	F	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9	A	M	+			+
10C	A	F	+	+	+	
11	A	F	+			+
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:
(+) - Visceral exam performed by mistake

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL268F

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	+			+
2	A	M	+	+	+	
3	A	F	+			+
4	A	F	+	+	+	
5	A	F	+			+
6	A	M	+	+	+	
7	A	M	+			+
8	A	F	+	+	+	
9	A	M	+			+
10	A	M	+	+	+	
11C	A	M	+			+
12	A	M	+	+	+	
13	A	F	+			+
14	A	F	+	+	+	
15	A	F	+			+
16	A	M	+	+	+	
17	A	M	+			+

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

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL212F

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

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	M	+	+	(a,B,C)	
3	A	F	+			+
4	A	M	+	+	+	
5	A	M	+			+
6	A	F	+	+	(D)	
7C	A	F	+			+
8	A	M	+	+	+	
9	A	F	+			+
10	A	F	+	+	+	
E						
11	A	M	+			(e,f)
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) - ABDOMEN/THORAX: Hydronephrosis; Bilateral
(C) - ABDOMEN/THORAX: Hydroureter; Bilateral
(D) - ABDOMEN/THORAX: Hydronephrosis; Right
(e) - SKELETAL/VERTEBRAE (T13): Bifid centra
(f) - SKELETAL/VERTEBRAE (T13 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL232F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
E						
E						
1	A	F	+			(b,c)
2	A	F	+	+	+	
3	A	F	+			+
E						
4	A	M	+	+	+	
5	A	M	+			(a,b,c)
6	A	F	+	+	+	
7C	A	F	+			+
8	A	F	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
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/RIBS (L1): Rudimentary; Bilateral
(b) - SKELETAL/VERTEBRAE (T12): Bifid centra
(c) - SKELETAL/VERTEBRAE (T12 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL243F

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		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+	+	+	
2	A	F	+			+
E						
3	A	F	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6	A	F	+			+
7	A	F	+	+	+	
8	A	F	+			+
9	A	M	+	+	+	
10C	A	F	+			+
11	A	M	+	+	+	
12	A	M	+			+
13	A	M	+	+	+	
14	A	F	+			(a,b)
15	A	M	+	+	+	
E						

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

NOTE:
(a) - SKELETAL/VERTEBRAE (T12): Bifid centra
(b) - SKELETAL/VERTEBRAE (T12 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL244F

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	F	+			+
2	A	F	+	+	+	
3	A	M	+			+
4	A	F	+	+	+	
5	A	M	+			+
6C	A	F	+	+	+	
7	A	F	+			+
8	A	F	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
13	A	F	+			+
14*	A	F	+	+	+	
15	A	M	+			+
16	A	F	+	+	+	
17	A	F	+			+

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

NOTE:
* - Stunted

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL282F

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	
E						
1	A	M	+			+
2	A	F	+	+	+	
3	A	M	+			+
4	A	F	+	+	+	
5	A	F	+			+
6	A	F	+	+	+	
EC						
7	A	F	+			+
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

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGL275F

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

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

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 curve: Figure I-3
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 of 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 four 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.

APPENDIX I - INHALATION EXPOSURE DATA

Sorbent Tube Sampling

Samples of each test atmosphere were collected for analysis by the analytical chemistry group during each week of the exposure. Samples were collected on SKC charcoal sorbent tubes using a Sierra vacuum pump. After collection the tubes were capped and stored in the necropsy freezer until transfer to the analytical lab. The following are the details of the sampling procedure.

Target Level (mg/m^3)	Flow (liters/minute)	Time (minutes)	Volume (liters)	Anticipated Loading (mg)
2000	0.1	120	12	24
10,000	0.1	60	6	60
20,000	0.1	30	3	60

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.

Lighting, Noise and Oxygen Levels

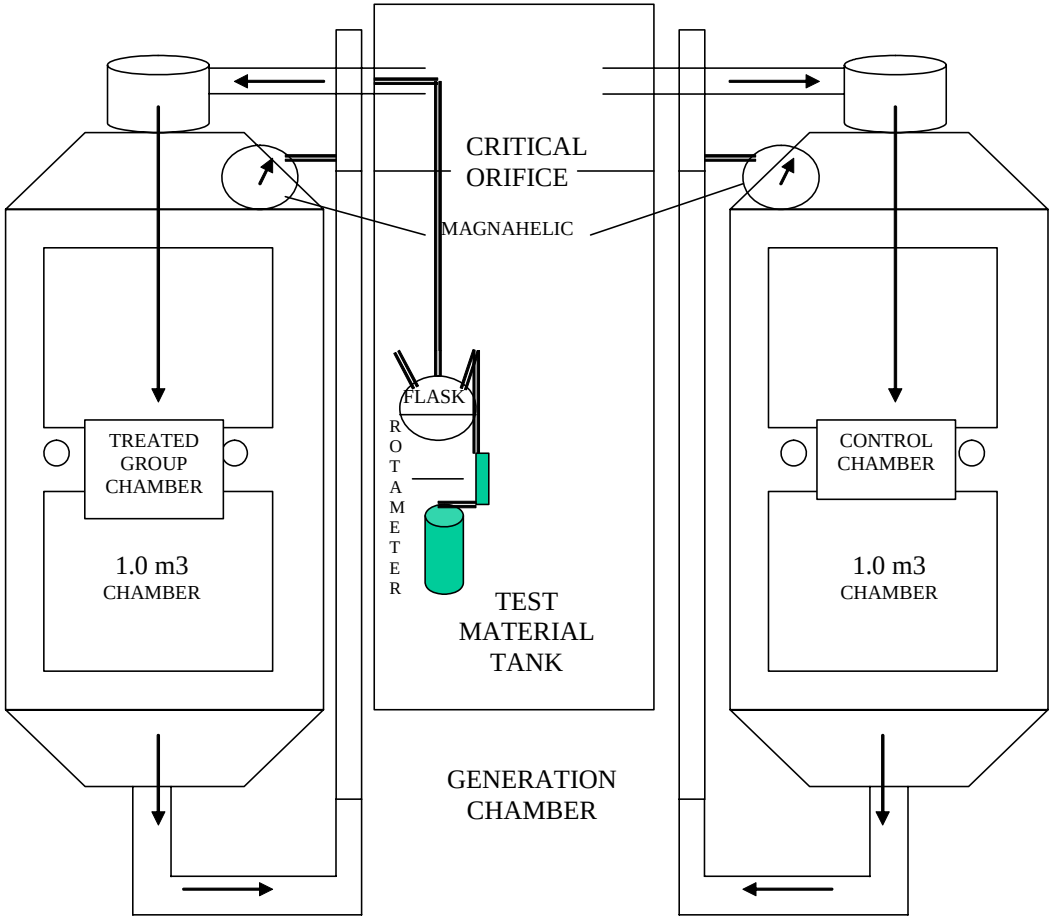
Table I-5 presents a summary of the lighting, noise, and oxygen level data.

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.

Additionally, 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, during the second week of exposures, and on the last day of exposures.

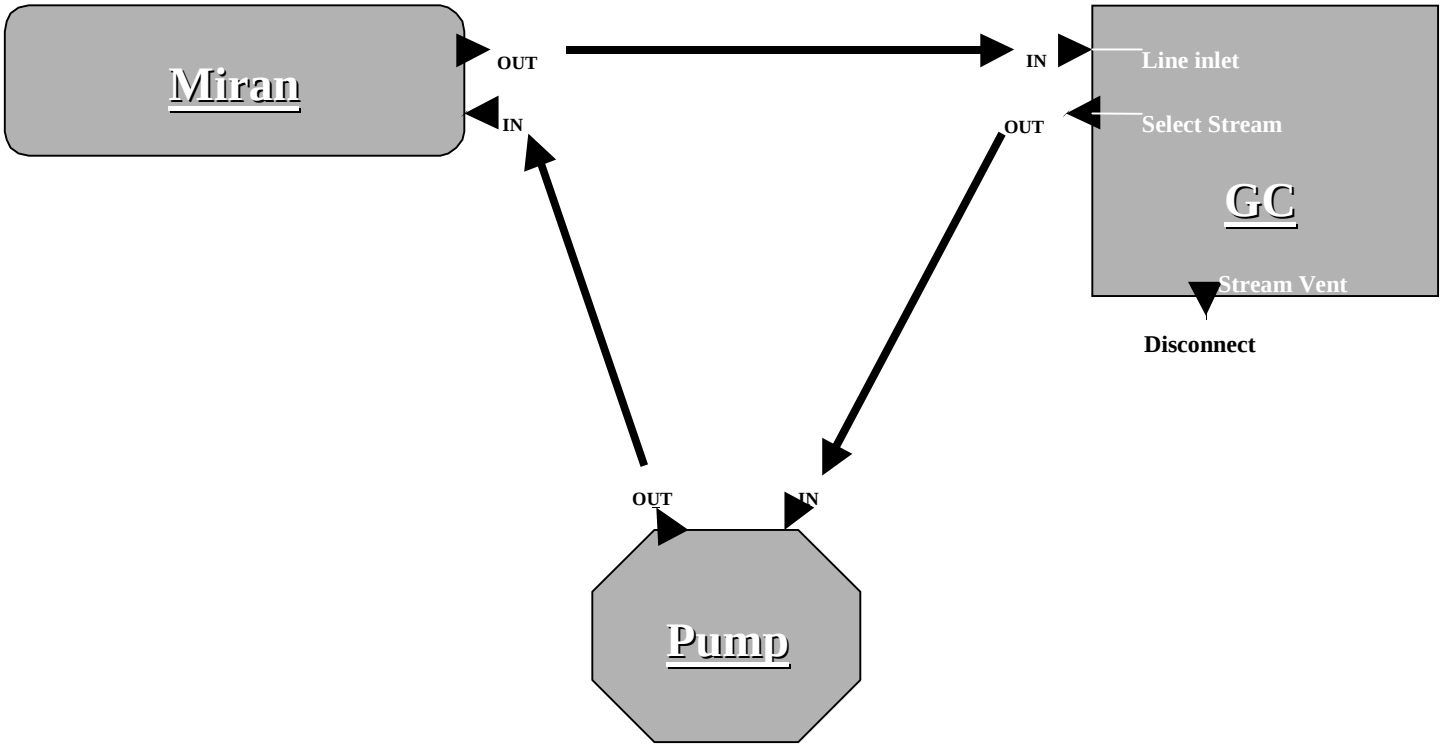
APPENDIX I - INHALATION EXPOSURE DATA

FIGURE 1 - SCHEMATIC OF GENERATION AND EXPOSURE SYSTEM



APPENDIX I - INHALATION EXPOSURE DATA

FIGURE 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	2073	10149	20303
Average Chamber Temperature (^OF)	68	71	74	71
Average Chamber Relative Humidity (% RH)	64	58	55	59

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-1 - MEAN EXPOSURE DATA

	Group 1				Group 2				Group 3				Group 4			
Date	Mean	Nominal	Chamber		Mean	Nominal	Chamber		Mean	Nominal	Chamber		Mean	Nominal	Chamber	
	(mg/m^3)	(mg/m^3)	^oF	% Rh	(mg/m^3)	(mg/m^3)	^oF	% Rh	(mg/m^3)	(mg/m^3)	^oF	% Rh	(mg/m^3)	(mg/m^3)	^oF	% Rh
9-Feb-02	0	0	64	71	2085	2325	69	60	9970	9708	73	58	20687	18950	68	66
10-Feb-02	0	0	64	71	1940	1857	70	65	9525	9965	74	52	19300	17960	68	72
11-Feb-02	0	0	66	70	2095	2114	70	61	10241	9990	73	59	19782	18785	70	65
12-Feb-02	0	0	68	72	2041	1968	71	67	9813	9906	75	61	20252	18911	71	66
13-Feb-02	0	0	68	69	2110	2007	70	65	10581	10157	74	62	20766	18897	71	68
14-Feb-02	0	0	67	59	2016	1903	70	55	9890	9790	75	53	20432	19093	71	55
15-Feb-02	0	0	68	56	2134	2088	71	51	10166	10168	75	47	20697	19288	71	52
16-Feb-02	0	0	68	56	2125	2067	71	52	10097	9865	73	52	20871	19214	71	53
17-Feb-02	0	0	68	57	1987	1971	71	52	9709	9499	75	47	19809	18658	71	51
18-Feb-02	0	0	68	60	2159	2015	70	55	10126	9903	74	54	20257	18774	72	52
19-Feb-02	0	0	70	58	2122	2099	71	60	10369	10264	75	53	20824	19186	73	56
20-Feb-02	0	0	70	59	2058	2000	73	51	10156	10150	74	57	17627	16881	73	53
21-Feb-02	0	0	69	72	2175	2093	70	71	9890	9765	75	60	20359	19107	73	60
22-Feb-02	0	0	70	65	2151	2079	70	64	9964	10175	75	54	20383	19436	73	57
23-Feb-02	0	0	70	65	2165	2015	73	56	12078	11313	75	57	20215	19026	73	59
24-Feb-02	0	0	70	64	2047	2075	74	59	10270	10196	75	60	20501	18860	72	65
25-Feb-02	0	0	70	65	2056	1935	74	55	9945	10025	76	56	20053	18906	73	59
26-Feb-02	0	0	70	58	2024	1910	73	53	10054	9892	76	50	20533	19078	73	55
27-Feb-02	0	0	70	63	2047	2214	72	57	10040	10401	76	50	20406	18993	73	56
28-Feb-02	0	0	68	65	2055	1947	71	58	10144	9979	75	53	20558	18960	71	59
1-Mar-02	0	0	68	65	2078	2006	71	59	10113	10078	71	58	20394	18879	75	54
2-Mar-02	0	0	68	65	2138	2015	70	57	10276	10058	74	53	20798	18894	71	59
3-Mar-02	0	0	68	65	2005	1950	72	58	9904	9943	73	60	20252	19222	70	64
4-Mar-02	0	0	67	65	1924	1954	71	58	10315	10121	74	56	20654	18993	71	58
5-Mar-02	0	0	68	64	2122	2139	71	53	10103	10047	74	55	20551	19043	70	56
6-Mar-02	0	0	67	59	2066	1925	70	55	10084	10033	74	52	20551	18810	70	56
7-Mar-02	0	0	66	62	2039	1967	70	55	10213	9986	74	49	20681	19038	69	57
MEAN	0	0	68	64	2073	2024	71	58	10149	10051	74	55	20303	18883	71	59
SD			1.7	5.0	65.6	101.9	1.3	5.1	441.0	312.9	1.1	4.2	641.8	478.9	1.7	5.5
Min			64	56	1924	1857	69	51	9525	9499	71	47	17627	16881	68	51
Max			70	72	2175	2325	74	71	12078	11313	76	62	20871	19436	75	72

SD - Standard Deviation

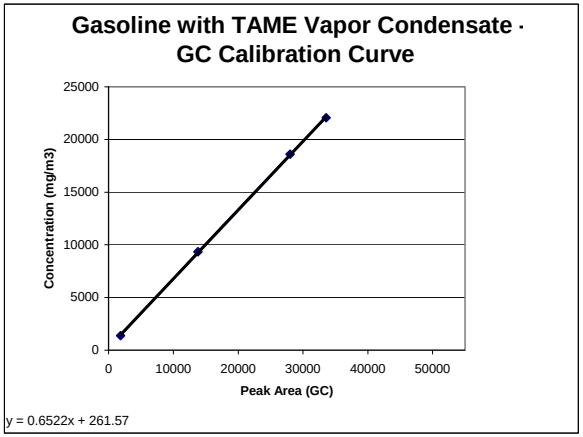
APPENDIX I - INHALATION EXPOSURE DATA

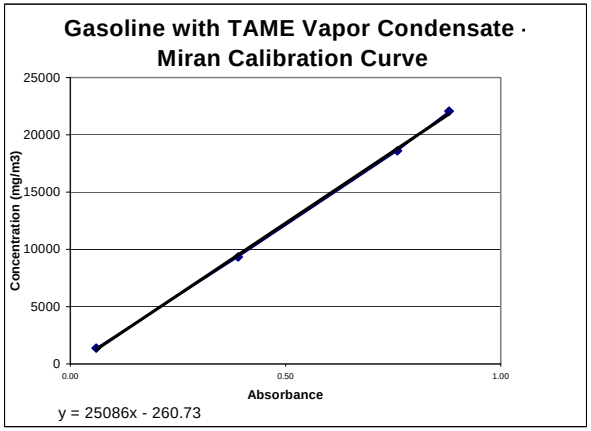
TABLE I-2 - GAS CHROMATOGRAPH OPERATING CONDITIONS

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^{o}C
INLET FLOW (cc/min)	Helium - 19.8
OVEN TEMPERATURE:	110^{o}C
DETECTOR TEMPERATURE:	250^{o}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

GROUP 1 - 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 (%)
9-Feb-02	1	0	0	64	71
10-Feb-02	2	0	0	64	71
11-Feb-02	3	0	0	66	70
12-Feb-02	4	0	0	68	72
13-Feb-02	5	0	0	68	69
14-Feb-02	6	0	0	67	59
15-Feb-02	7	0	0	68	56
16-Feb-02	8	0	0	68	56
17-Feb-02	9	0	0	68	57
18-Feb-02	10	0	0	68	60
19-Feb-02	11	0	0	70	58
20-Feb-02	12	0	0	70	59
21-Feb-02	13	0	0	69	72
22-Feb-02	14	0	0	70	65
23-Feb-02	15	0	0	70	65

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 - SUMMARY OF EXPOSURE DATA

GROUP 1 - 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 (%)
24-Feb-02	16	0	0	70	64
25-Feb-02	17	0	0	70	65
26-Feb-02	18	0	0	70	59
27-Feb-02	19	0	0	70	63
28-Feb-02	20	0	0	68	65
1-Mar-02	21	0	0	68	65
2-Mar-02	22	0	0	68	65
3-Mar-02	23	0	0	68	65
4-Mar-02	24	0	0	67	65
5-Mar-02	25	0	0	68	64
6-Mar-02	26	0	0	67	59
7-Mar-02	27	0	0	66	62
Mean		**0**	**0**	**68**	**64**
Std. Dev.		**0**	**0**	**1.7**	**4.9**

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 - SUMMARY OF EXPOSURE DATA

GROUP 2 - TARGET 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 (%)
9-Feb-02	1	2325	1979	2188	2081	2088	2105	2068	2085	69	60
10-Feb-02	2	1857	1885	2047	1979	1917	1915	1896	1940	70	65
11-Feb-02	3	2114	1808	2068	2190	2217	2169	2120	2095	70	61
12-Feb-02	4	1968	1966	1920	2124	2083	2169	1983	2041	71	67
13-Feb-02	5	2007	2059	2142	2242	2078	2154	1983	2110	70	65
14-Feb-02	6	1903	1982	1975	2075	2029	1985	2046	2016	70	55
15-Feb-02	7	2088	2292	2113	2139	2083	2055	2124	2134	71	51
16-Feb-02	8	2067	2066	2231	2138	2075	2135	2105	2125	71	52
17-Feb-02	9	1971	2126	1875	1912	1859	2116	2036	1987	71	52
18-Feb-02	10	2015	2185	2434	2063	2076	1987	2209	2159	70	55
19-Feb-02	11	2099	2008	2146	2170	2051	2168	2188	2122	71	60
20-Feb-02	12	2000	2002	1966	2183	2094	2064	2040	2058	73	51
21-Feb-02	13	2093	2104	2119	2176	2110	2351	2189	2175	70	71
22-Feb-02	14	2079	2096	2212	2145	2165	2154	2132	2151	70	64
23-Feb-02	15	2015	2084	2286	2073	2307	2187	2050	2165	73	56

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 - SUMMARY OF EXPOSURE DATA

GROUP 2 - TARGET 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 (%)
24-Feb-02	16	2075	1904	2196	2093	1570	2332	2190	2047	74	59
25-Feb-02	17	1935	2065	1948	2132	2078	1929	2186	2056	74	55
26-Feb-02	18	1910	2055	2096	2115	2114	1879	1885	2024	73	53
27-Feb-02	19	2214	2060	2191	2147	2007	2085	1792	2047	72	57
28-Feb-02	20	1947	2119	2063	1950	2085	1997	2114	2055	71	58
1-Mar-02	21	2006	2017	2099	2110	2093	2032	2119	2078	71	59
2-Mar-02	22	2015	1955	2233	2166	2213	2143	2116	2138	70	57
3-Mar-02	23	1950	2114	2035	2032	1903	1937	2007	2005	72	58
4-Mar-02	24	1954	1969	2141	2138	2167	2033	1094 [a]	1924	71	58
5-Mar-02	25	2139	1994	2108	2244	2181	2113	2094	2122	71	53
6-Mar-02	26	1925	2075	2110	2058	2055	2073	2022	2066	70	55
7-Mar-02	27	1967	1991	1935	2120	2121	2009	2060	2039	70	55
MEAN		2024							2073	71	58
Std. Dev.		101.9							65.6	1.3	5.1

a – Rotameter setting was too low

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 - SUMMARY OF EXPOSURE DATA

GROUP 3 - TARGET 10000 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 (%)
9-Feb-02	1	9708	10132	10380	10462	10335	8241	10270	9970	73	58
10-Feb-02	2	9965	8632	9521	9978	9791	9523	9706	9525	74	52
11-Feb-02	3	9990	10622	10757	10034	10176	10001	9853	10241	73	59
12-Feb-02	4	9906	7665	10170	10135	9566	11077	10263	9813	75	61
13-Feb-02	5	10157	11445	9839	10347	12196	9693	9962	10581	74	62
14-Feb-02	6	9790	10114	10084	10578	11888	8678	7997	9890	75	53
15-Feb-02	7	10168	10027	9658	10110	10419	10244	10536	10166	75	47
16-Feb-02	8	9865	10069	10295	10149	9886	10140	10040	10097	73	52
17-Feb-02	9	9499	10075	8694	9729	9583	10133	10041	9709	75	47
18-Feb-02	10	9903	9637	10246	10426	10165	9797	10482	10126	74	54
19-Feb-02	11	10264	9218	9982	10267	9942	11488	11319	10369	75	53
20-Feb-02	12	10150	9630	9949	10373	10418	10625	9942	10156	74	57
21-Feb-02	13	9765	8940	9986	9943	9896	10278	10298	9890	75	60
22-Feb-02	14	10175	8346	10069	9966	10455	10579	10369	9964	75	54
23-Feb-02	15	11313	9497	9762	9831	23790[a]	9907	9682	12078	75	57

a- Float stuck in rotameter

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 - SUMMARY OF EXPOSURE DATA

GROUP 3 - TARGET 10000 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 (%)
24-Feb-02	16	10196	10001	9981	11755	10155	9141	10588	10270	75	60
25-Feb-02	17	10025	9248	10157	10101	9934	10307	9925	9945	76	56
26-Feb-02	18	9892	10060	10126	9903	10087	9993	10156	10054	76	50
27-Feb-02	19	10401	9847	10247	10212	10077	10124	9734	10040	76	50
28-Feb-02	20	9979	10358	9195	10308	10170	10491	10343	10144	75	53
1-Mar-02	21	10078	9736	10197	10371	10260	10138	9974	10113	71	58
2-Mar-02	22	10058	9937	10338	10305	10242	10508	10325	10276	74	53
3-Mar-02	23	9943	9934	8657	10116	10350	10213	10155	9904	73	60
4-Mar-02	24	10121	10171	10066	10248	10809	10297	10300	10315	74	56
5-Mar-02	25	10047	9733	10028	10422	10340	10252	9841	10103	74	55
6-Mar-02	26	10033	9819	10230	10379	10048	10118	9909	10084	74	52
7-Mar-02	27	9986	9946	10137	10015	10307	10273	10598	10213	74	49
MEAN		10051							10149	74	55
Std. Dev.		312.9							441.0	1.1	4.2

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 - SUMMARY OF EXPOSURE DATA

GROUP 4 - TARGET 20000 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 (%)
9-Feb-02	1	18950	19980	21022	20792	21108	20711	20509	20687	68	66
10-Feb-02	2	17960	18086	20334	19690	19426	19200	19061	19300	68	72
11-Feb-02	3	18785	19209	19555	20174	19917	20421	19414	19782	70	65
12-Feb-02	4	18911	19734	20309	20282	20101	20811	20275	20252	71	66
13-Feb-02	5	18897	20204	20942	20661	20892	20907	20992	20766	71	68
14-Feb-02	6	19093	20018	20353	20455	20883	20553	20328	20432	71	55
15-Feb-02	7	19288	20264	20912	20766	20865	19943	21435	20697	71	52
16-Feb-02	8	19214	20253	20699	20686	21441	21200	20948	20871	71	53
17-Feb-02	9	18658	19411	18635	20229	20242	20392	19945	19809	71	51
18-Feb-02	10	18774	20290	20381	20121	20067	20418	20264	20257	72	52
19-Feb-02	11	19186	20334	20770	20851	20773	20920	21294	20824	73	56
20-Feb-02	12	16881	20578	20712	20369	21096	20857	2149 [a]	17627	73	53
21-Feb-02	13	19107	19743	20074	20960	19687	20970	20718	20359	73	60
22-Feb-02	14	19436	18848	20157	20071	21283	20984	20952	20383	73	57
23-Feb-02	15	19026	20021	19426	20377	20404	20617	20446	20215	73	59

a – Apparent problem with dip tube not reaching bottom of the tank

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 - SUMMARY OF EXPOSURE DATA

GROUP 4 - TARGET 20000 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 (%)
24-Feb-02	16	18860	a	20719	20859	20425	19650	20851	20501	72	65
25-Feb-02	17	18906	19729	19898	20158	20158	20317	20059	20053	73	59
26-Feb-02	18	19078	20349	20665	20333	20786	20547	20515	20533	73	55
27-Feb-02	19	18993	20214	20480	20551	20671	20631	19891	20406	73	56
28-Feb-02	20	18960	20241	20454	20417	20625	20872	20739	20558	71	59
1-Mar-02	21	18879	19903	20700	20707	20474	20344	20236	20394	75	54
2-Mar-02	22	18894	20381	21260	20665	20708	20956	20818	20798	71	59
3-Mar-02	23	19222	19859	19647	20863	20518	20487	20140	20252	70	64
4-Mar-02	24	18993	20150	20367	21097	20556	20889	20866	20654	71	58
5-Mar-02	25	19043	20494	20495	20454	20592	20461	20811	20551	70	56
6-Mar-02	26	18810	20029	20553	20824	20565	20691	20641	20551	70	56
7-Mar-02	27	19038	19886	20137	20911	20582	20651	21919	20681	69	57
MEAN		18883							20303	71	59
Std. Dev.		478.9							641.8	1.7	5.5

a - Sampling probe not replaced in chamber after previous day's cleaning. No sample collected and analyzed.

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-4 - SUMMARY OF CHAMBER DISTRIBUTION SAMPLING

SAMPLE	TARGET EXPOSURE LEVELS		
LOCATION	**2000 MG/M^3**	**10,000 MG/M^3**	**20,000 MG/M^3**
Left Top Back	1938	10105	19819
Left Top Front	1843	9488	20223
Left Middle Back	2112	10208	19882
Left Middle Front	2011	10425	19974
Left Bottom Back	2042	10872	19697
Left Bottom Front	2127	10854	19803
Right Top Back	2086	10432	21500
Right Top Front	2072	9561	19003
Right Middle Back	1986	10225	21727
Right Middle Front	2081	9428	21396
Right Bottom Back	1842	10046	20079
Right Bottom Front	2032	9404	20243
MEAN	2014	10087	20279
SD	96.3	523.1	827.7
%CV	4.8	5.2	4.1
Minimum	1842	9404	19003
Maximum	2127	10872	21727

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

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-5 – SUMMARY OF ENVIRONMENTAL CONDITIONS

Environmental Conditions			
	9-February-02	**19-February-02**	**7-March-02**
Light Intensity: (fc)			
PE 103 in a cage 3 feet above the floor.	11.0	21	15
Center of room PE 102 3 feet above the floor.	38	39	35
Room PE 110 3 feet above the floor.	47	50	35
Noise level: (db)			
1m - 1: Door open	78.5	76.9	77.5
1m - 1: Through port	79.6	78.7	78.1
1m - 2: Door open	77.2	78.3	78.5
1m - 2: Through port	78.7	79.3	78.0
1m - 3: Door open	81.0	80.4	77.1
1m - 3: Through port	81.9	82.1	79.0
1m - 4: Door open	75.2	74.8	73.9
1m - 4: Through port	77.8	77.9	75.7
O_2 Level: (%) (Reading upon removal)	No Alarm	No Alarm	No Alarms
1m - 1	20.7	20.9	20.8
1m - 2	20.7	20.9	20.8
1m - 3	20.6	20.9	20.8
1m - 4	20.7	20.9	20.8

1m-1, 1m-2, 1m-3, 1m-4 are exposure chamber designations.
fc = foot candles (measured with an Omega HHLM-2 Light Meter)
db = decibels (measured using an Omega HHSL-1 Sound Meter)
% = % oxygen (measured using a Biosystems Oxy Plus Single Sensor Gas Detector with an alarm at 19.5% O_2)

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-6 - 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	60	20
4	4.10	60	20
3	6.80	180	60
2	17.0	0	0
1	28.0	0	0
		TOTAL =300	
PARTICLE CONCENTRATION = 15 MG/M^3			

PARTICLE SIZE DETERMINED WITH A SIERRA SERIES 210 CASCADE IMPACTOR

CONDITIONS:
SAMPLE FLOWRATE (Liters/Minute): 4 SAMPLE DURATION (Minutes): 5

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-6 - PARTICLE SIZE DATA

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	40	100
2	17.0	0	0
1	28.0	0	0
		TOTAL =40	
CONCENTRATION OF PARTICLES = 2 MG/M^3			

PARTICLE SIZE DETERMINED WITH A SIERRA SERIES 210 CASCADE IMPACTOR

CONDITIONS:
SAMPLE FLOWRATE (Liters/Minute): 4 SAMPLE DURATION (Minutes): 5

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-7 – CHAMBER TEMPERATURES AND HUMIDITIES
CHAMBER TEMPERATURES (ºF) - 0 mg/m^3 Target Concentration
Time from Start of Exposure (Hours)

	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
9-Feb-02	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
10-Feb-02	***62***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
11-Feb-02	***62***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***
12-Feb-02	***66***	68	68	68	68	68	68	68	68	68	68	68	68
13-Feb-02	***66***	***66***	***67***	***67***	68	68	68	68	68	68	68	68	68
14-Feb-02	***66***	***66***	***66***	***66***	68	68	68	68	68	68	68	68	68
15-Feb-02	***66***	68	68	68	68	68	68	68	68	68	68	68	68
16-Feb-02	***66***	***67***	68	68	68	68	68	68	68	68	68	68	68
17-Feb-02	***66***	***66***	66	68	68	68	68	68	68	68	68	68	68
18-Feb-02	***66***	***67***	68	68	68	68	68	68	68	68	68	68	68
19-Feb-02	68	70	70	70	70	70	70	70	70	70	70	70	70
20-Feb-02	***67***	69	69	70	70	70	70	70	70	70	70	70	70
21-Feb-02	***67***	69	69	69	69	69	69	69	69	69	69	69	69
22-Feb-02	***66***	68	70	70	70	70	70	70	70	70	70	70	70
23-Feb-02	68	70	70	70	70	70	70	70	70	70	70	70	70
24-Feb-02	70	70	70	70	70	70	70	70	70	70	70	70	70
25-Feb-02	***66***	68	70	70	70	70	70	70	70	70	70	70	70
26-Feb-02	68	70	70	70	70	70	70	70	70	70	70	70	72
27-Feb-02	68	70	70	70	70	70	70	70	70	70	70	70	70
28-Feb-02	***66***	68	68	68	68	68	68	68	68	68	68	68	68
1-Mar-02	***66***	***66***	***66***	68	68	68	68	68	68	68	68	68	68
2-Mar-02	***66***	68	68	68	68	68	68	68	68	68	68	68	68
3-Mar-02	***66***	68	68	68	68	68	68	68	68	68	68	68	68
4-Mar-02	***66***	***66***	***66***	***66***	***66***	68	68	68	68	68	68	68	68
5-Mar-02	***66***	68	68	68	68	68	68	68	68	68	68	68	68
6-Mar-02	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	68	68	68	68	68
7-Mar-02	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***

APPENDIX I - INHALATION EXPOSURE DATA
TABLE I-7 – CHAMBER TEMPERATURES AND HUMIDITIES
CHAMBER TEMPERATURES (ºF) - 2000 mg/m^3 Target Concentration

	Time from Start of Exposure (Hours)												
	0	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**
9-Feb-02	***64***	***67***	68	68	70	70	70	70	70	70	70	70	70
10-Feb-02	***66***	70	70	70	70	70	70	70	70	70	70	70	70
11-Feb-02	***66***	68	70	70	70	70	72	72	70	72	72	72	72
12-Feb-02	***67***	70	70	72	72	70	72	72	72	70	72	72	72
13-Feb-02	***66***	69	70	70	70	70	70	70	70	70	70	70	70
14-Feb-02	70	70	70	70	70	70	70	72	72	72	70	70	70
15-Feb-02	68	71	71	72	72	72	70	72	72	72	72	72	72
16-Feb-02	68	70	71	71	71	71	71	71	71	71	71	71	71
17-Feb-02	66	70	70	72	72	72	72	72	72	72	72	72	72
18-Feb-02	***66***	70	70	70	70	71	71	71	71	71	71	71	71
19-Feb-02	70	71	71	71	71	71	71	71	71	71	71	71	71
20-Feb-02	68	70	70	73	74	74	74	74	74	74	74	74	74
21-Feb-02	68	70	70	70	70	70	70	70	70	70	70	70	70
22-Feb-02	68	70	70	70	70	70	70	70	70	70	70	70	70
23-Feb-02	70	70	72	73	74	74	74	74	74	74	74	74	74
24-Feb-02	72	72	74	74	74	74	74	74	74	74	74	74	74
25-Feb-02	68	72	72	72	74	74	74	74	74	74	***76***	***76***	***76***
26-Feb-02	70	72	72	74	74	74	74	74	74	74	74	74	74
27-Feb-02	70	70	72	72	72	72	72	72	72	72	72	72	72
28-Feb-02	70	70	70	70	70	70	72	72	72	72	72	72	72
1-Mar-02	68	70	70	70	70	70	70	70	72	72	72	72	72
2-Mar-02	68	70	70	70	70	70	70	70	70	70	70	70	70
3-Mar-02	68	70	72	72	72	72	72	72	72	72	72	72	72
4-Mar-02	66	70	70	70	70	70	72	72	72	72	72	72	72
5-Mar-02	68	70	70	70	72	72	72	72	72	72	72	72	72
6-Mar-02	68	70	70	70	70	70	70	70	72	72	72	70	70
7-Mar-02	68	70	70	70	70	70	70	70	70	70	70	70	70

APPENDIX I - INHALATION EXPOSURE DATA
TABLE I-7 – CHAMBER TEMPERATURES AND HUMIDITIES
CHAMBER TEMPERATURES (ºF) – 10,000 mg/m^3 Target Concentration

	Time from Start of Exposure (Hours)												
	0	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**
9-Feb-02	***64***	70	72	72	74	74	74	74	74	74	74	74	74
10-Feb-02	68	74	74	74	74	74	74	74	74	74	74	74	74
11-Feb-02	68	70	72	73	74	74	74	74	74	74	74	74	***76***
12-Feb-02	69	72	74	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***
13-Feb-02	***66***	70	73	73	74	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***
14-Feb-02	70	72	73	74	74	74	**76**	**76**	**76**	**76**	**76**	**76**	**76**
15-Feb-02	70	72	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***
16-Feb-02	69	72	74	74	74	74	74	74	74	74	74	74	74
17-Feb-02	68	72	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***
18-Feb-02	***66***	70	72	74	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***
19-Feb-02	70	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***
20-Feb-02	***67***	70	74	75	75	75	75	75	75	75	75	75	75
21-Feb-02	68	72	75	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***
22-Feb-02	68	71	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***
23-Feb-02	68	74	75	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***
24-Feb-02	70	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***
25-Feb-02	70	72	74	74	***76***	***76***	***78***	***78***	***78***	***78***	***78***	***78***	***78***
26-Feb-02	70	74	***76***	***76***	***76***	***76***	***78***	***78***	***78***	***78***	***78***	***78***	***78***
27-Feb-02	72	74	***76***	***76***	***76***	***76***	***76***	***76***	***78***	***78***	***78***	***78***	***78***
28-Feb-02	70	74	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***
1-Mar-02	68	68	70	70	72	72	72	72	72	72	72	72	72
2-Mar-02	68	68	74	75	75	75	75	75	75	75	75	75	75
3-Mar-02	68	72	74	74	74	74	74	74	74	74	74	74	74
4-Mar-02	***66***	70	72	74	74	74	74	***76***	***76***	***76***	***76***	***76***	***76***
5-Mar-02	***66***	70	72	74	74	74	76	***76***	***76***	***76***	***76***	***76***	***76***
6-Mar-02	68	70	72	74	74	74	74	74	***76***	***76***	***76***	***76***	***76***
7-Mar-02	68	70	72	74	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***

APPENDIX I - INHALATION EXPOSURE DATA
TABLE I-7 – CHAMBER TEMPERATURES AND HUMIDITIES
CHAMBER TEMPERATURES (ºF) – 20,000 mg/m^3 Target Concentration

	Time from Start of Exposure (Hours)												
	0	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**
9-Feb-02	***64***	***64***	68	68	68	68	69	69	69	69	69	69	69
10-Feb-02	***66***	68	68	68	68	68	68	68	68	68	68	68	68
11-Feb-02	***66***	68	69	69	70	70	70	70	70	70	70	70	72
12-Feb-02	***66***	69	70	70	70	70	72	72	72	72	72	72	72
13-Feb-02	***66***	68	70	70	70	70	72	72	72	72	72	72	72
14-Feb-02	68	68	70	70	70	72	72	72	72	72	72	72	72
15-Feb-02	68	70	70	70	72	72	72	72	72	72	72	72	72
16-Feb-02	***66***	70	70	70	70	72	72	72	72	72	72	72	72
17-Feb-02	***66***	70	70	72	72	72	72	72	72	72	72	72	72
18-Feb-02	***65***	68	70	71	71	72	72	72	74	74	74	74	74
19-Feb-02	68	70	72	72	73	73	73	73	73	74	74	74	74
20-Feb-02	***66***	70	70	72	74	74	74	74	74	74	74	74	74
21-Feb-02	68	70	72	74	74	74	74	74	74	74	74	74	74
22-Feb-02	***66***	70	71	72	74	74	74	74	74	74	74	74	74
23-Feb-02	***66***	71	72	72	74	74	74	74	74	74	74	74	74
24-Feb-02	68	70	72	72	72	72	72	72	72	72	72	72	72
25-Feb-02	70	70	72	72	74	74	74	74	74	75	75	75	75
26-Feb-02	68	70	72	72	74	74	74	74	74	76	74	76	76
27-Feb-02	68	70	72	72	74	74	74	74	74	74	74	74	74
28-Feb-02	68	70	70	72	72	72	72	72	72	72	72	72	72
1-Mar-02	70	72	74	74	76	76	76	76	76	76	76	76	76
2-Mar-02	***66***	69	70	72	72	72	72	72	72	72	72	72	72
3-Mar-02	***66***	70	70	70	70	70	70	70	70	70	70	70	70
4-Mar-02	***66***	68	70	70	70	72	72	72	72	72	72	72	72
5-Mar-02	***66***	68	70	70	70	70	70	70	70	70	72	72	72
6-Mar-02	***66***	68	70	70	70	70	70	70	70	70	72	72	72
7-Mar-02	***66***	68	68	70	70	70	70	70	70	70	70	70	70

APPENDIX I - INHALATION EXPOSURE DATA
TABLE I-7 – CHAMBER TEMPERATURES AND HUMIDITIES
CHAMBER HUMIDITIES (°F) - 0 mg/m^3 Target Concentration

	Time from Start of Exposure (Hours)												
	0	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**
9-Feb-02	***80***	***70***	***70***	***70***	***70***	***70***	***70***	***70***	***70***	***70***	***70***	***70***	***70***
10-Feb-02	***79***	***70***	***70***	***70***	***70***	***70***	***70***	***70***	***70***	***70***	***70***	***70***	***70***
11-Feb-02	***79***	***66***	***66***	***66***	***66***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***
12-Feb-02	***75***	***72***	***72***	***72***	***72***	***64***	***72***	***72***	***72***	***72***	***72***	***72***	***72***
13-Feb-02	***80***	***75***	***67***	***67***	***67***	***67***	***67***	***67***	***67***	***67***	***67***	***67***	***67***
14-Feb-02	**80**	**62**	**62**	**62**	55	55	55	55	55	64	55	55	55
15-Feb-02	***62***	55	55	55	55	55	55	55	55	55	55	55	55
16-Feb-02	***62***	58	55	55	55	55	55	55	55	55	55	55	55
17-Feb-02	***62***	***62***	***62***	55	55	55	55	55	55	55	55	55	55
18-Feb-02	***66***	***62***	59	59	59	59	59	59	59	59	59	59	59
19-Feb-02	***64***	57	57	57	57	57	57	57	57	57	57	57	57
20-Feb-02	***67***	***68***	***68***	57	57	57	57	57	57	57	57	57	57
21-Feb-02	***76***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***
22-Feb-02	***71***	***67***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
23-Feb-02	***72***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
24-Feb-02	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
25-Feb-02	***71***	***72***	***57***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
26-Feb-02	***64***	***64***	57	57	57	57	57	57	57	57	57	64	57
27-Feb-02	***64***	***64***	***64***	57	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
28-Feb-02	***71***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
1-Mar-02	***62***	***71***	***71***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
2-Mar-02	***71***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
3-Mar-02	***71***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
4-Mar-02	***90***	***71***	***62***	***62***	***62***	***55***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
5-Mar-02	***62***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
6-Mar-02	***62***	***62***	***62***	***62***	**62**	**62**	**62**	**62**	55	55	55	55	55
7-Mar-02	***62***	***62***	***62***	***62***	**62**	**62**	**62**	**62**	***62***	***62***	***62***	***62***	***62***

APPENDIX I - INHALATION EXPOSURE DATA
TABLE I-7 – CHAMBER TEMPERATURES AND HUMIDITIES
CHAMBER HUMIDITIES (ºF) - 2000 mg/m^3 Target Concentration

	Time from Start of Exposure (Hours)												
	0	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**
9-Feb-02	***80***	58	***64***	***64***	57	57	57	57	57	57	57	57	57
10-Feb-02	***71***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
11-Feb-02	***71***	***64***	***64***	***64***	***64***	***64***	57	57	57	57	57	57	57
12-Feb-02	***76***	***72***	***64***	***65***	***61***	***72***	***65***	***65***	***65***	***72***	***65***	***65***	***65***
13-Feb-02	***75***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
14-Feb-02	***64***	57	57	57	57	57	57	50	50	50	57	48	57
15-Feb-02	55	49	49	50	50	50	57	50	50	50	50	50	50
16-Feb-02	55	52	45	52	52	52	52	52	52	52	52	52	52
17-Feb-02	***62***	57	57	50	50	50	50	50	50	50	50	50	50
18-Feb-02	***62***	57	57	57	57	53	53	53	53	53	53	53	53
19-Feb-02	57	60	60	60	60	60	60	60	60	60	60	60	60
20-Feb-02	***64***	***64***	68	50	47	47	47	47	47	47	47	47	47
21-Feb-02	***64***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***
22-Feb-02	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
23-Feb-02	60	***64***	57	58	54	54	54	54	54	54	54	54	54
24-Feb-02	***65***	***65***	58	58	58	58	58	58	58	58	58	58	58
25-Feb-02	***64***	57	57	57	51	54	54	54	54	58	52	52	52
26-Feb-02	***64***	57	57	51	51	51	51	51	51	51	51	51	51
27-Feb-02	57	57	57	57	57	57	57	57	57	57	57	57	57
28-Feb-02	57	57	57	57	***64***	***64***	57	57	57	57	57	57	57
1-Mar-02	***64***	57	57	57	57	***64***	***64***	***64***	57	57	57	57	57
2-Mar-02	55	57	57	57	57	57	57	57	57	57	57	57	57
3-Mar-02	***64***	***64***	57	57	57	57	57	57	57	57	57	57	57
4-Mar-02	***90***	57	57	57	57	57	50	50	50	57	57	57	57
5-Mar-02	***64***	57	57	57	50	50	50	50	50	50	50	50	50
6-Mar-02	55	52	57	57	57	57	57	57	50	50	50	57	57
7-Mar-02	55	48	48	57	57	57	57	57	57	57	57	57	57

APPENDIX I - INHALATION EXPOSURE DATA
TABLE I-7 – CHAMBER TEMPERATURES AND HUMIDITIES
CHAMBER HUMIDITIES (ºF) – 10,000 mg/m^3 Target Concentration

	Time from Start of Exposure (Hours)												
	0	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**
9-Feb-02	***80***	***64***	***61***	***61***	54	54	54	54	54	54	54	54	54
10-Feb-02	***64***	51	51	51	51	51	51	51	51	51	51	51	51
11-Feb-02	***64***	***64***	***61***	***61***	58	58	58	58	58	58	58	58	52
12-Feb-02	***76***	***69***	58	62	59	59	59	59	59	59	59	59	59
13-Feb-02	***80***	***72***	***61***	***61***	58	58	59	59	59	59	59	59	59
14-Feb-02	***72***	57	54	51	51	51	45	52	52	52	52	52	52
15-Feb-02	57	57	51	45	45	45	45	45	45	45	45	45	45
16-Feb-02	60	53	51	51	51	51	51	51	51	51	51	51	51
17-Feb-02	55	57	51	45	45	45	45	45	45	45	45	45	45
18-Feb-02	***62***	***64***	57	51	51	52	52	52	52	52	52	52	52
19-Feb-02	***64***	54	49	49	52	52	52	52	52	52	52	52	52
20-Feb-02	***67***	***64***	58	55	55	55	55	55	55	55	55	55	55
21-Feb-02	***72***	***65***	59	59	59	59	59	59	59	59	59	59	59
22-Feb-02	***72***	60	54	52	52	52	52	52	52	52	52	52	52
23-Feb-02	***72***	58	55	56	56	56	56	56	56	56	56	56	56
24-Feb-02	***72***	58	59	59	59	59	59	59	59	59	59	59	59
25-Feb-02	a	***65***	58	58	56	56	50	50	53	53	53	53	56
26-Feb-02	***64***	51	52	52	52	52	46	46	46	46	53	46	46
27-Feb-02	57	51	52	52	52	52	52	52	46	46	46	46	46
28-Feb-02	***64***	51	51	52	52	52	52	52	52	52	52	52	52
1-Mar-02	***64***	***64***	57	57	57	57	57	57	57	57	57	57	57
2-Mar-02	***64***	***64***	51	51	51	51	51	51	51	51	51	51	51
3-Mar-02	***72***	***65***	58	58	58	58	58	58	58	58	58	58	58
4-Mar-02	***90***	57	57	51	51	58	51	52	52	52	52	52	52
5-Mar-02	***71***	57	57	54	58	58	45	52	52	52	52	52	52
6-Mar-02	55	57	57	51	51	51	51	51	45	45	52	52	52
7-Mar-02	55	57	50	51	51	45	45	45	45	45	45	52	52

a – Hygrometer dry

APPENDIX I - INHALATION EXPOSURE DATA
TABLE I-7 – CHAMBER TEMPERATURES AND HUMIDITIES
CHAMBER HUMIDITIES (ºF) – 20,000 mg/m^3 Target Concentration

	Time from Start of Exposure (Hours)												
	0	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**
9-Feb-02	***80***	***80***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
10-Feb-02	***71***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***
11-Feb-02	***71***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***65***
12-Feb-02	***71***	***68***	***64***	***64***	***68***	***72***	***65***	***65***	***65***	***65***	***65***	***65***	***65***
13-Feb-02	***80***	***72***	***68***	***68***	***68***	***68***	***65***	***65***	***65***	***65***	***65***	***65***	***65***
14-Feb-02	***72***	***64***	57	57	57	50	50	50	50	57	50	57	50
15-Feb-02	55	57	57	57	50	50	50	50	50	50	50	50	50
16-Feb-02	***62***	57	57	57	57	50	50	50	50	50	50	50	50
17-Feb-02	53	57	57	50	50	50	50	50	50	50	50	50	50
18-Feb-02	51	64	57	57	57	53	53	53	47	47	47	47	47
19-Feb-02	***64***	***64***	57	57	54	54	54	54	54	54	54	54	54
20-Feb-02	***62***	***68***	***72***	57	51	51	51	51	51	51	51	51	51
21-Feb-02	***64***	***72***	***65***	58	58	58	58	58	58	58	58	58	58
22-Feb-02	***71***	***68***	60	57	54	54	54	54	54	54	54	54	54
23-Feb-02	***62***	***69***	57	57	58	58	58	58	58	58	58	58	58
24-Feb-02	***64***	***72***	***65***	***65***	***65***	***65***	***65***	***65***	***65***	***65***	***65***	***65***	***65***
25-Feb-02	***64***	***72***	***65***	***65***	51	58	58	58	58	55	55	55	55
26-Feb-02	***72***	***64***	57	57	51	51	51	51	51	52	51	52	52
27-Feb-02	***72***	***64***	57	57	51	51	51	51	51	51	58	58	58
28-Feb-02	***64***	***64***	***64***	57	57	57	57	57	57	57	57	57	57
1-Mar-02	***64***	***65***	51	58	52	52	52	52	52	52	52	52	52
2-Mar-02	***71***	***64***	***64***	57	57	57	57	57	57	57	57	57	57
3-Mar-02	***62***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
4-Mar-02	***90***	***64***	57	57	57	50	50	50	50	57	57	57	57
5-Mar-02	***62***	***64***	57	57	57	57	57	57	57	57	50	50	50
6-Mar-02	62	55	57	57	57	57	57	57	57	57	50	50	50
7-Mar-02	62	55	55	57	57	57	57	57	57	57	57	57	57

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 60 minutes. Aliquots were then analyzed by GC-FID.

STANDARDIZATION

A standard mixture was prepared in CS_2 containing each of the 18 target hydrocarbons plus TAME 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.

CHARACTERIZATION

Characterization of the neat MRD-00-715 (gasoline with TAME vapor condensate) 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-00-715 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
FID Range	FID (2^5)
Detector Temperature; (gas flows)	225°C (H_2 45 mL/min; Air 450 mL/min)
Injector Temperature (Split ratio)	200°C (split injection 20:1)
Injection Volume	0.2µL or 0.5µL*
Analytical Column	Supleco Petrocol DH 150 fused silica capillary column (150m x 250µm; 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 4.1.2
Carrier Gas Program	65 psi (He)

*0.2µL injected of 10,000mg/m^3 and 20,000mg/m^3 samples, 0.5µL injected of 2000mg/m^3 samples.

RESULTS

Hydrocarbon characterization was performed on an area percent basis for each of the 18 target hydrocarbons and TAME oxygenate. Results are listed in Table J-1.

The relative distribution of hydrocarbons and oxygenate measured on the chamber characterization charcoal tubes was in good agreement with that measured in the characterization of neat MRD-00-715 test substance, indicating that there was no change in the composition of the test substance over the course of the study.

D. J. Letinski, M.S.
Analytical Chemist

6 Nov. 2008
Date

APPENDIX J - ANALYTICAL CHEMISTRY REPORT

TABLE J - 1

MRD-00-715 CHAMBER CHARACTERIZATION - SORBENT TUBES HYDROCARBON DISTRIBUTION

Sample Date	13-Feb-02[a]			19-Feb-02			26-Feb-02			5-Mar-02		
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	1.5	1.4	1.3	1.9	1.6	1.6	1.7	1.6	1.6	1.9	1.8	1.6
n-butane	8.9	8.6	8.2	10.2	9.1	9.3	9.7	9.2	9.3	10.3	10.1	9.4
isopentane	33.4	33.7	33.8	35.0	33.3	33.3	33.3	33.3	33.5	33.9	34.8	33.3
n-pentane	10.5	10.6	10.7	10.9	10.4	10.6	10.3	10.5	10.5	10.4	10.8	10.4
trans-2-pentene	2.4	2.4	2.4	2.5	2.3	2.4	2.3	2.4	2.4	2.4	2.5	2.4
2-methyl-2-butene	3.5	3.6	3.6	3.7	3.5	3.6	3.6	3.5	3.5	3.5	3.6	3.5
2,3-dimethylbutane	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.9	1.8
2-methylpentane	5.4	5.5	5.6	5.4	5.4	5.6	5.3	5.4	5.5	5.3	5.4	5.4
3-methylpentane	3.4	3.5	3.5	3.4	3.4	3.5	3.4	3.4	3.4	3.3	3.4	3.4
n-hexane	2.9	2.9	2.9	2.8	2.9	2.9	2.8	2.9	2.9	2.8	2.8	2.9
methylcyclopentane	1.5	1.5	1.6	1.6	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5
2,4-dimethylpentane	1.3	1.3	1.3	1.1	1.3	1.2	1.3	1.3	1.3	1.2	1.2	1.3
benzene	2.4	2.2	2.2	2.5	2.1	2.2	2.4	2.1	2.1	2.4	2.0	2.1
2-methylhexane	1.4	1.4	1.4	1.1	1.4	1.3	1.4	1.4	1.4	1.3	1.2	1.4
2,3-dimethylpentane	1.5	1.5	1.4	1.2	1.5	1.4	1.4	1.4	1.4	1.3	1.3	1.5
TAME	12.1	12.1	12.3	10.5	12.2	12.2	11.8	12.3	12.1	11.5	11.1	12.3
3-methylhexane	1.6	1.6	1.6	1.2	1.6	1.5	1.6	1.6	1.6	1.6	1.4	1.6
isooctane	1.8	1.7	1.5	1.2	1.8	1.6	1.7	1.8	1.7	1.6	1.4	1.8
toluene	2.8	2.6	2.8	2.0	2.7	2.3	2.6	2.6	2.5	2.3	1.9	2.6
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.
a – The results of the 20,000 mg/m3 target concentration are from a repeat of the analysis. The original analysis was not acceptable because one of the peaks was not detected due to baseline interference.

APPENDIX K – STATISTICIAN'S REPORT

Analysis Of Fetal Data From A Whole-Body Inhalation Developmental Toxicity Study In Rats With Baseline Gasoline with TAME Vapor Condensate (MRD-00-715)

This report details the statistical analysis of fetal body weight and anomaly data from ExxonMobil Study 171534. The study was conducted to evaluate the potential developmental toxicity of Baseline Gasoline with TAME Vapor Condensate (GTVC). GTVC was administered via whole-body inhalation exposure to pregnant rats during the period of major organogenesis and fetal growth. GTVC was administered by whole-body inhalation exposure to 25 confirmed-mated Crl: CD®(SD)IGR BR female rats at target exposures 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 20.

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 exposure group, litter size, and fetal sex as explanatory variables. When the overall effect of exposure, or the exposure by sex effect, was statistically significant the exposure 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 (observations, 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 exposure, or the exposure by sex effect, was statistically significant the exposure 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
Malformations for All Fetuses
Variations for All Fetuses

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Table I lists the four categories and corresponding sub-categories. Within each category several subcategories were combined into a group of similar anomalies. For example in the Category Skeletal the separate sub-categories of "SKELETAL/RIBS: Rudimentary supernumerary ribs" and "SKELETAL/RIBS: Well-formed supernumerary ribs" were combined into a sub-category "SKELETAL/RIBS: Supernumerary ribs". 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**
Head	1- HEAD: Retina fold	
External	1- EXTERNAL: Abdomen appears dark	
	2– EXTERNAL: Acaudate	
	3- EXTERNAL: Agnathia	
	4- EXTERNAL: Apparent macrophthalmia; Left	
	5- EXTERNAL Exencephaly	
	6- EXTERNAL: Exophthalmos; Left	
	7- EXTERNAL: Malpositioned eye; Left	
	8- EXTERNAL: Malpositioned pinna; Bilateral	
	9- EXTERNAL: Malrotated hindpaw; Right	
	10- EXTERNAL: Microstomia	
	11- EXTERNAL: Naris Atresia	
	12-EXTERNAL: Open Eye; Left	
	13-EXTERNAL: Filamentous tail	
Abdomen/Thorax	1- ABDOMEN/THORAX: Atria large; Bilateral	
	2- ABDOMEN/THORAX: Bladder misshapen (base extends **2**/**3** up bladder)	
	3- ABDOMEN/THORAX: Fluid-filled abdomen	
	4- ABDOMEN/THORAX: Hydronephrosis	
	5- ABDOMEN/THORAX: Hydroureter	
	6- ABDOMEN/THORAX: Malpositioned kidney; Bilateral	
	7- ABDOMEN/THORAX: Malpositioned ovary; Bilateral	
	8- ABDOMEN/THORAX: Malpositioned oviduct; Bilateral	
	9- ABDOMEN/THORAX: Malpositioned testis; Left	
	10-ABDOMEN/THORAX: Malpositioned uterus	
	11-ABDOMEN/THORAX: Situs inversus (abdomen)	
	12-ABDOMEN/THORAX: Transposition of great vessels	
	13-ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder	

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Skeletal	1- SKELETAL/RIBS (T11): Agenesis; Left	
	2- SKELETAL/RIBS (T13): Short last rib; Right	
	3- SKELETAL/RIBS: Fused ribs	
	4- SKELETAL/RIBS: Rudimentary supernumerary ribs	
	5- SKELETAL/RIBS: Well-formed supernumerary ribs	
	6- SKELETAL/SKULL (Mandible): Agenesis; Bilateral	
	7- SKELETAL/SKULL (Nasal): Hypoplastic; Bilateral	
	8- SKELETAL/SKULL: Multiple bones malformed	
	9- SKELETAL/STERNEBRAE (III-IV): Bifid centra	
	10-SKELETAL/STERNEBRAE (VI): Advanced	
	11-SKELETAL/STERNEBRAE: Asymmetric sternebrae	
	12-SKELETAL/STERNEBRAE: Unossified sternebrae	
	13-SKELETAL/VERTEBRAE (CA): Multiple bones agenesis	
	14-SKELETAL/VERTEBRAE (CE,CE Anlage): Multiple bones malformed	
	15-SKELETAL/VERTEBRAE (L6 Arch Anlage): Fused to ilium; Right	
	16-SKELETAL/VERTEBRAE (S): Multiple bones agenesis	
	17-SKELETAL/VERTEBRAE (T,T Anlage): Multiple bones malformed	
	18-SKELETAL/VERTEBRAE (T14): Presacral	
	19-SKELETAL/VERTEBRAE (T4-**5** Anlage): Fused centra	
	20-SKELETAL/VERTEBRAE (T5): Hemicentra	
	21-SKELETAL/VERTEBRAE (T6 Anlage): Malformed; vertebrae is **1**/**2** lower than normal position	
	22-SKELETAL/VERTEBRAE (T6 Anlage): Misshapen centra	
	23-SKELETAL/VERTEBRAE (T6): Unossified centra	
	24-SKELETAL/VERTEBRAE (T9): Dumbbell shaped centra	
	25-SKELETAL/VERTEBRAE: Bifed vertebral centra	
	26-SKELETAL/VERTEBRAE: Bifid vertebral centra anlage	
	27-SKELETAL/VERTEBRAE: Dumbbell shaped vertebral centra	
	28-SKELETAL/VERTEBRAE: Dumbbell shaped vertebral centra anlage	
	29-SKELETAL/VERTEBRAE: Misshapen vertebral centra	
	30-SKELETAL/RIBS: Supernumerary ribs	4,5
	31-SKELETAL/STERNEBRAE: Hypoplastic sternebrae	9,12
	32-SKELETAL/VERTEBRAE: Hypolpastic vertebral centra anlage	26,28
	33-SKELETAL/VERTEBRAE: Hypoplastic vertebral centra	20,23,25,27,29
	34-SKELETAL/VERTEBRAE: Malformed vertebral anlage	8,14,17,21

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RESULTS:

BODY WEIGHT ANALYSIS

There was a statistically significant difference in the mean fetal litter weights among the dose groups ($p<0.05$). The high exposure group mean fetal weight was less than the unexposed group. The dose by sex interaction was not statistically significant, therefore only the group means are presented. Table II shows the mean fetal weight, the least squares mean fetal weight.

Table II
Mean fetal weight, the least squares mean fetal weight

Target Exposure Group (mg/m^3)	n litters	n fetuses	observed fetus mean (gm)	Least squares fetus mean (gm)
0	25	374	5.33	5.31
2,000	23	344	5.35	5.37
10,000	24	362	5.34	5.35
20,000	24	366	5.09	5.10*

* statistically significantly different from control, $p<0.05$

MALFORMATION ANALYSES

For the analysis of anomalies there were statistically significant differences observed in five related groupings:

1. Rudimentary supernumerary ribs
2. Skeletal combined supernumerary ribs
3. Skeletal malformations combined, all fetuses
4. Skeletal variations combined, all fetuses
5. Skeletal variations and malformations combined, all fetuses

Examination of the related incidence tables shows the count of rudimentary supernumerary ribs is responsible for the statistically significant findings of all five analyses. The statistically significant effect for rudimentary supernumerary ribs is in the dose by sex interaction. Table III provides the incidence count and percents for these observations.

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Table III
Skeletal Count of Rudimentary Supernumerary Ribs
Numbers in parenthesis are percents

Target Exposure Group (mg/m^3)	Fetal Sex	Dams Examined	Fetuses Examined	Dams Affected	Fetuses Affected
0	F	25	96	10 (40)	14 (15)
2,000		22	77	5 (23)	6 (8)
10,000		24	98	5 (21)	8 (8)
20,000		24	98	3 (13)	5 (5)
0	M	24	96	3 (13)	4 (4)
2,000		22	94	8 (36)	8 (9)
10,000		24	83	5 (21)	8 (10)
20,000		24	85	8 (33)	11 (13)

The statistically significant differences were seen in
For Females: the *higher* incidence of affected fetuses in the zero exposure group relative to the incidence in the highest exposure group, and

This reversal of high/low counts between zero and high exposure groups in male and female fetuses is the basis for the statistically significant interaction terms. It was only these interaction terms that were statistically significant for all five analyses.

Incidence tables for all measures are provided in the appendix.

CONCLUSION:
Based on these findings, administration of the test substance at the targeted exposures is associated with a decrease in mean litter fetal body weight in the high exposure group, and is associated with an unusual incidences in skeletal rudimentary supernumerary ribs that is not dose related.

Mark J. Nicolich, Ph.D.
Statistician
ExxonMobil Biomedical Sciences, Inc
1545 Route 22 East
PO Box 971
Annandale, NJ 08801-0971

8 OCT 2008
Date

George Bukhbinder, Ph.D.
Consultant

15 OCT 2008
Date

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Ryan, L., "The use of generalized estimating equations for risk assessment in developmental toxicity", Risk Analysis, 12(3), pg 439-447, 1992.

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APPENDIX
Anomaly Counts
Study # 171534
head - individual
HEAD: Retina fold

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	183	2	3
2000 MG/M3	23	173	3	3
10000 MG/M3	24	182	1	1
20000 MG/M3	24	183	1	1

External Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	374	2	2
2000 MG/M3	23	344	1	1
10000 MG/M3	24	361	4	4
20000 MG/M3	24	366	0	0

APPENDIX K – STATISTICIAN'S REPORT (CONT'D)

external - individual
EXTERNAL: Abdomen appears dark

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	374	0	0
2000 MG/M3	23	344	0	0
10000 MG/M3	24	361	1	1
20000 MG/M3	24	366	0	0

external - individual
EXTERNAL: Acaudate

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	374	0	0
2000 MG/M3	23	344	0	0
10000 MG/M3	24	361	1	1
20000 MG/M3	24	366	0	0

external - individual
EXTERNAL: Agnathia

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	374	0	0
2000 MG/M3	23	344	0	0
10000 MG/M3	24	361	1	1
20000 MG/M3	24	366	0	0

APPENDIX K – STATISTICIAN'S REPORT (CONT'D)

external - individual
EXTERNAL: Apparent macrophthalmia; Left

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	374	0	0
2000 MG/M3	23	344	0	0
10000 MG/M3	24	361	1	1
20000 MG/M3	24	366	0	0

external - individual
EXTERNAL: Exencephaly

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	374	0	0
2000 MG/M3	23	344	0	0
10000 MG/M3	24	361	1	1
20000 MG/M3	24	366	0	0

external - individual
EXTERNAL: Exophthalmos; Left

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	374	0	0
2000 MG/M3	23	344	0	0
10000 MG/M3	24	361	1	1
20000 MG/M3	24	366	0	0

external - individual
EXTERNAL: Filamentous tail

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	374	0	0
2000 MG/M3	23	344	0	0
10000 MG/M3	24	361	1	1
20000 MG/M3	24	366	0	0

APPENDIX K – STATISTICIAN'S REPORT (CONT'D)

external - individual
EXTERNAL: Malpositioned eye/open eye; Left

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	374	0	0
2000 MG/M3	23	344	0	0
10000 MG/M3	24	361	1	1
20000 MG/M3	24	366	0	0

external - individual
EXTERNAL: Malpositioned pinna; Bilateral

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	374	0	0
2000 MG/M3	23	344	0	0
10000 MG/M3	24	361	1	1
20000 MG/M3	24	366	0	0

external - individual
EXTERNAL: Malrotated hindpaw; Right

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	374	2	2
2000 MG/M3	23	344	1	1
10000 MG/M3	24	361	1	1
20000 MG/M3	24	366	0	0

external - individual
EXTERNAL: Microstomia

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	374	0	0
2000 MG/M3	23	344	0	0
10000 MG/M3	24	361	1	1
20000 MG/M3	24	366	0	0

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external - individual
EXTERNAL: Naris Atresia

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	374	0	0
2000 MG/M3	23	344	0	0
10000 MG/M3	24	361	1	1
20000 MG/M3	24	366	0	0

Visceral Variations and Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	2	2
2000 MG/M3	23	173	4	5
10000 MG/M3	24	182	4	4
20000 MG/M3	24	183	4	7

Visceral Variations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	1	1
2000 MG/M3	23	173	1	1
10000 MG/M3	24	182	1	1
20000 MG/M3	24	183	2	2

APPENDIX K – STATISTICIAN'S REPORT (CONT'D)

Visceral Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	1	1
2000 MG/M3	23	173	4	4
10000 MG/M3	24	182	4	4
20000 MG/M3	24	183	4	7

visceral - individual
ABDOMEN/THORAX: Atria large; Bilateral

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	0	0
2000 MG/M3	23	173	0	0
10000 MG/M3	24	182	1	1
20000 MG/M3	24	183	0	0

APPENDIX K – STATISTICIAN'S REPORT (CONT'D)

visceral - individual
ABDOMEN/THORAX: Bladder misshapen (base extends 2/3 up bladder)

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	0	0
2000 MG/M3	23	173	0	0
10000 MG/M3	24	182	0	0
20000 MG/M3	24	183	1	1

visceral - individual
ABDOMEN/THORAX: Fluid-filled abdomen

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	0	0
2000 MG/M3	23	173	0	0
10000 MG/M3	24	182	1	1
20000 MG/M3	24	183	0	0

visceral - individual
ABDOMEN/THORAX: Hydronephrosis

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	0	0
2000 MG/M3	23	173	2	2
10000 MG/M3	24	182	1	1
20000 MG/M3	24	183	3	5

visceral - individual
ABDOMEN/THORAX: Hydroureter

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	0	0
2000 MG/M3	23	173	4	4
10000 MG/M3	24	182	1	1
20000 MG/M3	24	183	4	5

APPENDIX K – STATISTICIAN'S REPORT (CONT'D)

visceral - individual
ABDOMEN/THORAX: Malpositioned kidney; Bilateral

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	0	0
2000 MG/M3	23	173	0	0
10000 MG/M3	24	182	1	1
20000 MG/M3	24	183	0	0

visceral - individual
ABDOMEN/THORAX: Malpositioned ovary; Bilateral

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	0	0
2000 MG/M3	23	173	0	0
10000 MG/M3	24	182	1	1
20000 MG/M3	24	183	0	0

visceral - individual
ABDOMEN/THORAX: Malpositioned oviduct; Bilateral

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	0	0
2000 MG/M3	23	173	0	0
10000 MG/M3	24	182	1	1
20000 MG/M3	24	183	0	0

visceral - individual
ABDOMEN/THORAX: Malpositioned testis; Left

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	1	1
2000 MG/M3	23	173	0	0
10000 MG/M3	24	182	0	0
20000 MG/M3	24	183	0	0

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visceral - individual
ABDOMEN/THORAX: Malpositioned uterus

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	0	0
2000 MG/M3	23	173	0	0
10000 MG/M3	24	182	1	1
20000 MG/M3	24	183	0	0

visceral - individual
ABDOMEN/THORAX: Situs inversus (abdomen)

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	0	0
2000 MG/M3	23	173	0	0
10000 MG/M3	24	182	1	1
20000 MG/M3	24	183	0	0

visceral - individual
ABDOMEN/THORAX: Transposition of great vessels

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	182	0	0
2000 MG/M3	23	173	0	0
10000 MG/M3	24	182	1	1
20000 MG/M3	24	183	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	25	182	1	1
2000 MG/M3	23	173	1	1
10000 MG/M3	24	182	1	1
20000 MG/M3	24	183	2	2

APPENDIX K – STATISTICIAN'S REPORT (CONT'D)

Skeletal Variations and Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	19	34
2000 MG/M3	23	171	16	36
10000 MG/M3	24	181	16	32
20000 MG/M3	24	183	16	27

Skeletal Variations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	19	34
2000 MG/M3	23	171	16	34
10000 MG/M3	24	181	16	32
20000 MG/M3	24	183	16	27

Skeletal Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	1	1
10000 MG/M3	24	181	3	3
20000 MG/M3	24	183	0	0

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skeletal - individual
SKELETAL/RIBS (T11): Agenesis; Left

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/RIBS (T13): Short last rib; Right

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	1	2
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

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skeletal - individual
SKELETAL/RIBS: Fused ribs

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/RIBS: Rudimentary supernumerary ribs

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	11	18
2000 MG/M3	23	171	11	14
10000 MG/M3	24	181	7	16
20000 MG/M3	24	183	10	16

skeletal - individual
SKELETAL/RIBS: Well-formed supernumerary ribs

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	1	1
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/SKULL (Mandible): Agenesis; Bilateral

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

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skeletal - individual
SKELETAL/SKULL (Nasal): Hypoplastic; Bilateral

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/SKULL: Multiple bones malformed

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/STERNEBRAE (III-IV): Bifid centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	1	1
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	0	0
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/STERNEBRAE (VI): Advanced

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	2	2
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	0	0
20000 MG/M3	24	183	0	0

APPENDIX K – STATISTICIAN'S REPORT (CONT'D)

skeletal - individual
SKELETAL/STERNEBRAE: Asymmetric sternebrae

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	2
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/STERNEBRAE: Unossified sternebrae

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	2	2
2000 MG/M3	23	171	1	2
10000 MG/M3	24	181	3	3
20000 MG/M3	24	183	1	1

skeletal - individual
SKELETAL/VERTEBRAE (CA): Multiple bones agenesis

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/VERTEBRAE (CE,CE Anlage): Multiple bones malformed

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

APPENDIX K – STATISTICIAN'S REPORT (CONT'D)

skeletal - individual
SKELETAL/VERTEBRAE (L6 Arch Anlage): Fused to ilium; Right

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	1	1
10000 MG/M3	24	181	0	0
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/VERTEBRAE (S): Multiple bones agenesis

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/VERTEBRAE (T,T Anlage): Multiple bones malformed

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/VERTEBRAE (T14): Presacral

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	1	1
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	0	0
20000 MG/M3	24	183	0	0

APPENDIX K – STATISTICIAN'S REPORT (CONT'D)

skeletal - individual
SKELETAL/VERTEBRAE (T4-5 Anlage): Fused centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/VERTEBRAE (T5): Hemicentra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/VERTEBRAE (T6 Anlage): Malformed; vertebrae is 1/2 lower than normal position

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/VERTEBRAE (T6 Anlage): Misshapen centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

APPENDIX K – STATISTICIAN'S REPORT (CONT'D)

skeletal - individual
SKELETAL/VERTEBRAE (T6): Unossified centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/VERTEBRAE (T9): Dumbbell shaped centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	1	1
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - individual
SKELETAL/VERTEBRAE: Bifid vertebral centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	9	11
2000 MG/M3	23	171	10	15
10000 MG/M3	24	181	5	9
20000 MG/M3	24	183	6	10

skeletal - individual
SKELETAL/VERTEBRAE: Bifid vertebral centra anlage

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	2	2
2000 MG/M3	23	171	2	2
10000 MG/M3	24	181	2	4
20000 MG/M3	24	183	0	0

APPENDIX K – STATISTICIAN'S REPORT (CONT'D)

skeletal - individual
SKELETAL/VERTEBRAE: Dumbbell shaped vertebral centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	1	1
2000 MG/M3	23	171	2	4
10000 MG/M3	24	181	2	3
20000 MG/M3	24	183	1	1

skeletal - individual
SKELETAL/VERTEBRAE: Dumbbell shaped vertebral centra anlage

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	7	9
2000 MG/M3	23	171	7	10
10000 MG/M3	24	181	5	8
20000 MG/M3	24	183	5	8

skeletal - individual
SKELETAL/VERTEBRAE: Misshapen vertebral centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	1	1
10000 MG/M3	24	181	1	1
20000 MG/M3	24	183	0	0

skeletal - combined
SKELETAL/RIBS: Supernumerary ribs

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	11	18
2000 MG/M3	23	171	11	14
10000 MG/M3	24	181	8	17
20000 MG/M3	24	183	10	16

APPENDIX K – STATISTICIAN'S REPORT (CONT'D)

skeletal - combined
SKELETAL/STERNEBRAE: Hypoplastic sternebrae

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	2	2
2000 MG/M3	23	171	1	2
10000 MG/M3	24	181	3	3
20000 MG/M3	24	183	1	1

skeletal - combined
SKELETAL/VERTEBRAE: Hypoplastic vertebral centra anlage

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	8	11
2000 MG/M3	23	171	8	12
10000 MG/M3	24	181	6	11
20000 MG/M3	24	183	5	8

skeletal - combined
SKELETAL/VERTEBRAE: Hypoplastic vertebral centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	12	13
2000 MG/M3	23	171	11	19
10000 MG/M3	24	181	9	13
20000 MG/M3	24	183	8	11

skeletal - combined
SKELETAL/VERTEBRAE: Malformed vertebral anlage

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	192	0	0
2000 MG/M3	23	171	0	0
10000 MG/M3	24	181	2	2
20000 MG/M3	24	183	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	NUMBER OF LITTERS/FETUSES	% PREGNANT	DOSIN ROUTE/CA
9A	May 9, 2000 – June 2, 2000	Raleigh, NC/R04	Crl:CD®(SD)IGSBR VAF/Plus	25/398	100	Oral/Cor
9B	May 9, 2000 – June 2, 2000	Raleigh, NC/R04	Crl:CD®(SD)IGSBR VAF/Plus	25/401	100	Oral/Cor
10	May 19, 2001 – June 15, 2001	Raleigh, NC/R04	Crl:CD®(SD)IGSBR VAF/Plus	24/359	96	Inhalatio
11	August 19, 2001 – September 18, 2001	Raleigh, NC/R04	Crl:CD®(SD)IGSBR VAF/Plus	24/358	96	Inhalatio
12	November 18, 2001 - December 20, 2001	Raleigh, NC/R04	Crl:CD®(SD)IGSBR VAF/Plus	25/389	100	Inhalatio
13	February 3, 2002 – March 8, 2001	Raleigh, NC/R04	Crl:CD®(SD)IGSBR VAF/Plus	25/374	100	Inhalatio

APPENDIX L - HISTORICAL CONTROL DATA
(UTERINE IMPLANTATION DATA)

	LIVE	MALE	FEMALE	RESORPTIONS	IMPLANTS	CORPORA LUTEA	DEAD	FETUS/ IMPLANTS	RESORPTIONS/ IMPLANTS	F/I TRANSFORMED
HIGH	16.04	7.92	8.36	0.63	16.48	17.16	0	0.98	0.04	80.376320
LOW	14.92	7.17	7.42	0.32	15.50	16.04	0	0.96	0.02	78.114083
STUDY #										
12	15.56	7.92	7.64	0.32	15.88	16.40	0	0.98	0.02	80.376320
STD	2.92	2.64	2.38	0.56	2.88	2.99	0	0.04	0.03	3.947106
(N)	25	25	25	25	25	25	25	25	25	25
11	14.92	7.17	7.75	0.63	15.54	16.04	0	0.96	0.04	78.114083
STD	2.19	2.57	2.27	0.77	1.82	1.94	0	0.05	0.05	5.545914
(N)	24	24	24	24	24	24	24	24	24	24
10	14.96	7.54	7.42	0.58	15.50	16.42	0	0.97	0.04	78.883958
STD	3.07	2.90	2.55	0.83	3.18	3.41	0	0.05	0.05	5.408551
(N)	24	24	24	24	24	24	24	24	24	24
9(B)	16.04	7.84	8.20	0.44	16.48	17.16	0	0.97	0.03	79.840760
STD	2.24	1.57	1.91	0.77	2.02	1.93	0	0.05	0.05	5.232909
(N)	25	25	25	25	25	25	25	25	25	25
9(A)	15.92	7.56	8.36	0.52	16.44	16.88	0	0.97	0.03	79.294360
STD	1.53	1.69	1.60	0.71	1.42	1.48	0	0.04	0.04	4.836482
(N)	25	25	25	25	25	25	25	25	25	25

APPENDIX L - HISTORICAL CONTROL DATA
(UTERINE IMPLANTATION DATA)

	R/I TRANSFORMED	D/I TRANSFORMED	DEAD/ IMPLANTS	PRE IMPLANT LOSS	POST IMPLANT LOSS	MALFORMATIONS	VARIATIONS	AFFECTED
HIGH	11.886500	7.455	0	5.1	4.2	0.25	1.40	0.90
LOW	9.624000	7.103	0	2.5	2.0	0.08	0	0.40
STUDY #								
12	9.624000	7.326	0	3.0	2.0	0.10	1.40	0.40
STD	3.947128	0.905	0	3.9	3.4	0.30	1.20	0.60
(N)	25	25	25	25	25	25	25	25
11	11.886500	7.324	0	3.0	4.2	0.25	1.10	0.90
STD	5.545880	0.446	0	3.9	5.4	0.53	1.10	1.10
(N)	24	24	24	24	24	24	24	24
10	11.402500	7.455	0	5.1	3.3	0.17	0.70	0.80
STD	5.349722	1.087	0	12.6	5.4	0.38	0.80	0.80
(N)	24	24	24	24	24	24	24	24
9(B)	10.159600	7.117	0	3.9	2.8	0.08	0.00	0.50
STD	5.232766	0.478	0	7.0	5.0	0.40	0.00	0.80
(N)	25	25	25	25	25	25	25	25
9(A)	10.706120	7.103	0	2.5	3.1	0.12	0.10	0.60
STD	4.836645	0.318	0	4.3	4.3	0.33	0.40	0.70
(N)	25	25	25	25	25	25	25	25

APPENDIX L - HISTORICAL CONTROL DATA
(FETAL BODY WEIGHTS)

	MALE	FEMALE
HIGH	5.75	5.50
LOW	5.41	5.16
STUDY #	[redacted]	
12	5.59	5.36
STD	0.36	0.32
(N)	198	191
11	5.52	5.25
STD	0.38	0.45
(N)	172	186
10	5.75	5.50
STD	0.35	0.34
(N)	181	178
9(B)	5.41	5.16
STD	0.45	0.39
(N)	196	205
9(A)	5.61	5.31
STD	0.38	0.37
(N)	189	209

APPENDIX L - HISTORICAL CONTROL DATA
(EXTERNAL DATA)

STUDY #	12	11	10	9(B)	9(A)
% STUNTED - F	0.26	0.84	0	1.25	0
% STUNTED - L	4.00	8.33	0	16.00	0
% EXT. VAR. - F	0	0	0	0	0
% EXT. VAR. - L	0	0	0	0	0
% EXT. MAL - F	0.26	0.56	0.28	0	0.50
% EXT. MAL. - L	4.00	8.33	4.17	0	8.00
Cleft Palate - F					
Cleft Palate - L					
Malrotated hindpaw - F	0.26	0.28	0.28		0.50
Malrotated hindpaw - L	4.00	4.17	4.17		8.00
Filamentous tail - F		0.28			
Filamentous tail - L		4.17			

NOTE: F - Fetus
L - Litter

APPENDIX L - HISTORICAL CONTROL DATA
(INTERNAL DATA)

STUDY #	12	11	10	9(B)	9(A)
% VIS. VAR. - F	0	0	0	0	1.00
% VIS. VAR. - L	0	0	0	0	4.00
% VIS. MAL. - F	0.51	2.21	1.69	1.02	0.50
% VIS. MAL. - L	4.0	16.67	12.50	4.00	4.00
Hydrocephaly - F					
Hydrocephaly - L					
Olfactory bulb: Misshapen - F	0.51				
Olfactory bulb: Misshapen - L	4.00				
Microphthalmia - F				0.51	
Microphthalmia - L				4.00	
Retinal fold - F			1.12		
Retinal fold - L			8.33		
Heart: Misshapen - F					
Heart: Misshapen - L					
Subclavian artery: Abnormal origin - F					
Subclavian artery: Abnormal origin - L					
Subclavian artery: Retroesophageal - F					
Subclavian artery: Retroesophageal - L					
Adrenal(s): Discolored - F					
Adrenal(s): Discolored - L					

APPENDIX L - HISTORICAL CONTROL DATA
(INTERNAL DATA)

STUDY #	12	11	10	9(B)	9(A)
Renal pelvis(es): Dilated - F					
Renal pelvis(es): Dilated - L					
Hydronephrosis - F		1.66			
Hydronephrosis - L		12.50			
Ureter(s): Convoluted - F					1.00
Ureter(s): Convoluted - L					4.00
Hydroureter - F		0.55	0.56	0.51	0.50
Hydroureter - L		4.17	4.17	4.00	4.00
Umbilical artery: Left of urinary bladder - F					
Umbilical artery: Left of urinary bladder - L					

NOTE: F - Fetus
L - Litter
$ - Not examined

APPENDIX L - HISTORICAL CONTROL DATA
(SKELETAL DATA)

STUDY #	12	11	10	9(B)	9(A)
% SKEL. VAR. - F	15.46	15.25	8.84	$	$
% SKEL. VAR. - L	60.00	54.17	50.00	$	$
% SKEL. MAL. - F	0	1.13	0	$	$
% SKEL. MAL. - L	0	8.33	0	$	$
Skull bone(s): Hypoplastic - F					
Skull bone(s): Hypoplastic - L					
Skull bone(s): Unossified - F					
Skull bone(s): Unossified - L					
Forepaw: Advanced - F					
Forepaw: Advanced - L					
Forepaw: Unossified - F					
Forepaw: Unossified - L					
Sternebrae: Asymmetric form - F					
Sternebrae: Asymmetric form - L					
Sternebrae: Bifid - F					
Sternebrae: Bifid - L					
Sternebrae: Hypoplastic - F	1.03				
Sternebrae: Hypoplastic - L	4.00				
Sternebrae: Unossified - F		1.7	1.10		
Sternebrae: Unossified - L		8.33	8.33		
Sternebral anlage: Hypoplastic - F		2.82			
Sternebral anlage: Hypoplastic - L		12.50			
Vertebrae: Absent multiple - F		0.56			
Vertebrae: Absent multiple - L		4.17			
Vertebral centra: Bifid- F	10.82	6.78	1.10		
Vertebral centra: Bifid- L	48.00	29.17	8.33		

APPENDIX L - HISTORICAL CONTROL DATA
(SKELETAL DATA)

STUDY #	12	11	10	9(B)	9(A)
Vertebral centra: Dumbbell/8-shaped - F	0.52		1.10		
Vertebral centra: Dumbbell/8-shaped - L	4.00		8.33		
Vertebral centra: Misshapen - F		0.56			
Vertebral centra: Misshapen- L		4.17			
Vertebral centra: Unossified - F		0.56			
Vertebral centra: Unossified - L		4.17			
Vertebrae: Supernumerary presacral Lumbar - F		0.56			
Vertebrae: Supernumerary presacral Lumbar - L		4.17			
Vertebral centra anlage: Bifid - F					
Vertebral centra anlage: Bifid - L					
Vertebral centra anlage: Dumbbell/8 shaped - F	1.55				
Vertebral centra anlage: Dumbbell/8 shaped - L	12.00				
Vertebral centra anlage: Hypoplastic - F		1.69			
Vertebral centra anlage: Hypoplastic - L		12.50			
Vertebral centra anlage: Misshapen - F		0.56			
Vertebral centra anlage: Misshapen - L		4.17			
Rib(s): Hypoplastic - F					
Rib(s): Hypoplastic - L					
Rib(s): Misshapen - F					
Rib(s): Misshapen - L					
Rib(s): Rudimentary lumbar - F	4.12	1.70	5.52		
Rib(s): Rudimentary lumbar - L	24.00	12.50	25.00		
Rib(s): Well formed lumbar - F					
Rib(s): Well formed lumbar - L					
Rib(s): Short last thoracic - F					
Rib(s): Short last thoracic - L					
Rib(s): Thick/wavy - F					
Rib(s): Thick/wavy - L					

APPENDIX L - HISTORICAL CONTROL DATA
(SKELETAL DATA)

STUDY #	12	11	10	9(B)	9(A)
Rib(s) anlage: Hypoplastic - F		2.82			
Rib(s) anlage: Hypoplastic - L		12.50			
Rib(s) anlage: Site of ossification - F		1.13			
Rib(s) anlage: Site of ossification - L		4.17			
Pelvic girdle: Hypoplastic - F					
Pelvic girdle: Hypoplastic - L					
Hindpaw: Advanced - F					
Hindpaw: Advanced - L					
Hindpaw: Unossified - F					
Hindpaw: Unossified - L					

NOTE: F - Fetus
L - Litter
$ - Not examined

APPENDIX M – FEED AND WATER ANALYSES
FEED ANALYSIS

LabDiet PMI NUTRITION

Return to Certified Analysis Retrieval

Product Code: 5002M
Product Desc: CERTIFIED RODENT DIET MEAL
Lab Number: L0127004-3
Lot Code: NOV 13 01 1C
Entered: 11/14/2001

Assay	Analysis	Units
PROTEIN	21.2	%
FAT (ACID HYDRO.)	5.65	%
FIBER (CRUDE)	4.18	%
ARSENIC	0.212	PPM
CADMIUM	LESS THAN 0.05	PPM
CALCIUM	1.03	%
LEAD	0.177	PPM
MERCURY	LESS THAN 0.025	PPM
PHOSPHORUS	0.712	%
SELENIUM	0.288	PPM

ORGANOPHOSPHATES	PPM	ORGANOPHOSPHATES	PPM
Diazinon	LESS THAN 0.02	Disulfoton	LESS THAN 0.02
Ethion	LESS THAN 0.02	Malathion	0.17
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 ANALYSIS

ExxonMobil Biomedical Sciences, Inc.

Memorandum

To PE Wing Animal Facility Supply
Water Analysis Files

Re Analysis Results for 24-Jan-02 Sample

From R. C. Forgash RF 20-Feb-02

Date February 20, 2002

EXACT COPY
RF 20-Feb-02

The results of the PE wing animal facility supply water analysis from the sample collected on 24-Jan-02 revealed no contaminant levels above the maximum contaminant levels. The only noteworthy results were those listed below.

	Result	MCL
Chloroform	0.72 µg/l	80 µg/l *
Total Plate Count	1 CFU/ml	100 CFU/ml

All reported values for this water analysis are judged acceptable.

Key: * = Total for Trihalomethanes
MCL = Maximum Contaminant Level
µg/l = micrograms per liter
CFU/l = Colony Forming Units per milliliter

cc: J. J. Freeman

APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSIS

Accutest Laboratories

Report of Analysis

Client Sample ID:	PE105		
Lab Sample ID:	N7196-1	**Date Sampled:**	01/24/02
Matrix:	DW - Drinking Water	**Date Received:**	01/24/02
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	T30050.D	1	01/31/02	GTT	n/a	n/a	VT969
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		0.87	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND		0.60	ug/l	
67-66-3	Chloroform	0.72		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	0.67	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	ND	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	ND	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	

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

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APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSIS

Accutest Laboratories

Report of Analysis

Client Sample ID:	PE105		
Lab Sample ID:	N7196-1	**Date Sampled:**	01/24/02
Matrix:	DW - Drinking Water	**Date Received:**	01/24/02
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)	111%		73-127%
2037-26-5	Toluene-D8 (SUR)	98%		88-111%
460-00-4	4-Bromofluorobenzene (SUR)	83%		75-114%

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 ANALYSIS

Accutest Laboratories

Report of Analysis

Client Sample ID:	PE105		
Lab Sample ID:	N7196-1	**Date Sampled:**	01/24/02
Matrix:	DW - Drinking Water	**Date Received:**	01/24/02
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	R21946.D	1	02/02/02	CBD	01/28/02	OP10919	ER682
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		10	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)
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N = Indicates presumptive evidence of a compound

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APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSIS

Accutest Laboratories

Report of Analysis

Client Sample ID:	PE105		
Lab Sample ID:	N7196-1	**Date Sampled:**	01/24/02
Matrix:	DW - Drinking Water	**Date Received:**	01/24/02
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	10	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	66%		15-93%
4165-62-2	Phenol-d5	25%		10-76%
118-79-6	2,4,6-Tribromophenol	98%		38-144%
4165-60-0	Nitrobenzene-d5	89%		43-126%
321-60-8	2-Fluorobiphenyl	82%		38-130%
1718-51-0	Terphenyl-d14	92%		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 ANALYSIS

Accutest Laboratories

Report of Analysis

Client Sample ID:	PE105		
Lab Sample ID:	N7196-1	**Date Sampled:**	01/24/02
Matrix:	DW - Drinking Water	**Date Received:**	01/24/02
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	XX26022.D	1	01/28/02	KLS	01/28/02	OP10914	GXX600
Run #2	WW30054.D	1	01/29/02	YYX	01/28/02	OP10914	GWW1007

Pesticide/PCB PPL List

CAS No.	Compound	Result	MCL	RL	Units	Q
309-00-2	Aldrin	ND [a]		0.0076	ug/l	
319-84-6	alpha-BHC	ND [a]		0.0056	ug/l	
319-85-7	beta-BHC	ND [a]		0.0049	ug/l	
319-86-8	delta-BHC	ND [a]		0.0076	ug/l	
58-89-9	gamma-BHC (Lindane)	ND [a]	0.20	0.0056	ug/l	
12789-03-6	Chlordane	ND [a]	0.50	0.19	ug/l	
60-57-1	Dieldrin	ND [a]		0.0066	ug/l	
72-54-8	4,4'-DDD	ND [a]		0.014	ug/l	
72-55-9	4,4'-DDE	ND [a]		0.013	ug/l	
50-29-3	4,4'-DDT	ND [a]		0.011	ug/l	
72-20-8	Endrin	ND [a]	2.0	0.0096	ug/l	
1031-07-8	Endosulfan sulfate	ND [a]		0.0076	ug/l	
7421-93-4	Endrin aldehyde	ND [a]		0.0081	ug/l	
959-98-8	Endosulfan-I	ND [a]		0.0051	ug/l	
33213-65-9	Endosulfan-II	ND [a]		0.0076	ug/l	
76-44-8	Heptachlor	ND [a]	0.40	0.0076	ug/l	
1024-57-3	Heptachlor epoxide	ND [a]	0.20	0.0061	ug/l	
72-43-5	Methoxychlor	ND [a]	40	0.049	ug/l	
8001-35-2	Toxaphene	ND [a]	3.0	0.34	ug/l	
12674-11-2	Aroclor 1016	ND	0.50	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	0.090	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	0.13	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	0.30	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	0.23	ug/l	
11097-69-1	Aroclor 1254	ND	0.50	0.11	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	0.27	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%	110%	66-121%
877-09-8	Tetrachloro-m-xylene	98%	96%	66-121%
2051-24-3	Decachlorobiphenyl	76%	85%	61-131%
2051-24-3	Decachlorobiphenyl	81%	83%	61-131%

(a) Result is from Run# 2

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

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APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSIS

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	PE105		
Lab Sample ID:	N7196-1	**Date Sampled:**	01/24/02
Matrix:	DW - Drinking Water	**Date Received:**	01/24/02
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	EF35926.D	1	01/30/02	YYX	01/29/02	OP10915	GEF1972
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	74%		57-158%
19719-28-9	2,4-DCAA	80%		57-158%

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

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APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSIS

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID: PE105
Lab Sample ID: N7196-1
Matrix: DW - Drinking Water
Project: Lab Animal Room Water

Date Sampled: 01/24/02
Date Received: 01/24/02
Percent Solids: n/a

Metals Analysis

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	<0.0050	0.0060	0.0050	mg/l	1	02/13/02	02/13/02	JDM	EPA 200.9	EPA 200.9
Arsenic	<0.0050	0.050	0.0050	mg/l	1	01/30/02	01/30/02	LH	EPA 200.7	EPA 200.7
Beryllium	<0.0030	0.0040	0.0030	mg/l	1	01/30/02	01/30/02	LH	EPA 200.7	EPA 200.7
Cadmium	<0.0040	0.0050	0.0040	mg/l	1	01/30/02	01/30/02	LH	EPA 200.7	EPA 200.7
Calcium	<5.0		5.0	mg/l	1	01/30/02	01/30/02	LH	EPA 200.7	EPA 200.7
Chromium	<0.010	0.10	0.010	mg/l	1	01/30/02	01/30/02	LH	EPA 200.7	EPA 200.7
Copper	<0.025	1.3	0.025	mg/l	1	01/30/02	01/30/02	LH	EPA 200.7	EPA 200.7
Lead	<0.0030	0.015	0.0030	mg/l	1	02/12/02	02/12/02	JDM	EPA 200.9	EPA 200.9
Magnesium	<5.0		5.0	mg/l	1	01/30/02	01/30/02	LH	EPA 200.7	EPA 200.7
Manganese	<0.015	0.050	0.015	mg/l	1	01/30/02	01/30/02	LH	EPA 200.7	EPA 200.7
Mercury	<0.00020	0.0020	0.00020	mg/l	1	02/05/02	02/05/02	RP	EPA 245.1	EPA 245.1
Nickel	<0.040		0.040	mg/l	1	01/30/02	01/30/02	LH	EPA 200.7	EPA 200.7
Selenium	<0.0050	0.050	0.0050	mg/l	1	02/13/02	02/13/02	JDM	EPA 200.9	EPA 200.9
Silver	<0.010	0.10	0.010	mg/l	1	01/30/02	01/30/02	LH	EPA 200.7	EPA 200.7
Thallium	<0.0020	0.0020	0.0020	mg/l	1	02/14/02	02/14/02	JDM	EPA 200.9	EPA 200.9
Zinc	<0.020	5.0	0.020	mg/l	1	01/30/02	01/30/02	LH	EPA 200.7	EPA 200.7

RL = Reporting Limit
MCL = Maximum Contamination Level (NJAC 7:10-1 11/96)

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APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSIS

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	PE105		
Lab Sample ID:	N7196-1	**Date Sampled:**	01/24/02
Matrix:	DW - Drinking Water	**Date Received:**	01/24/02
		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	01/25/02 MJC	ACCUTEST
Coliform, Fecal [a]	0		col/100ml	1	01/25/02 MJC	SM18 9222D
Coliform, Total	NEGATIVE	0		1	01/25/02 MJC	SM18 9223B
Cyanide	<0.010	0.20	mg/l	1	01/31/02 PDC	EPA 335.4
Hardness, Total	<4.0		mg/l	1	02/01/02 JKT	SM19 2340C
Nitrogen, Ammonia	<0.10		mg/l	1	02/06/02 AMS	EPA350.1, SM4500NH3H
Phenols	<0.050		mg/l	1	02/07/02 PDC	EPA 420.2
Plate Count, Total	1		CFU/ml	1	01/25/02 MJC	SM18 9215B
Solids, Total Suspended	<4.0		mg/l	1	01/25/02 KJ	EPA 160.2

(a) Fecal Coliform result confirmed by negative total coliform result.

MCL = Maximum Contamination Level (NJAC 7:10-1 11/96)

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