ABSTRACT

The developmental toxicity of gasoline with ethanol 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. There was evidence of slight maternal toxicity as indicated by statistically significant decreased body weight changes at the GD 20-21 and GD 5-21 intervals at 20,000 mg/m^3 target concentration. Additionally, decreasing linear trends in body weight at the GD 21 interval and in body weight change at the GD 8-11, GD 20-21, GD 5-21, GD 0-21, and GD 0-21C intervals also indicate slight maternal toxicity. Similar linear trends were noted for the majority of the food consumption intervals. There were no exposure-attributable statistically significant differences for uterine implantation data, and external, skeletal, and visceral observations in the fetuses. Thus, exposure to gasoline with ethanol vapor condensate at levels up to 20,000 mg/m^3 did not cause developmental toxicity but did cause slight maternal toxicity. Therefore, the No Observable Adverse Effect Levels (NOAELs) for maternal and developmental toxicity were 10,000 mg/m^3 and 20,000 mg/m3 target concentrations, respectively.

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FINAL REPORT

PROJECT NUMBER: 171434

TEST SUBSTANCE: GASOLINE WITH ETHANOL VAPOR CONDENSATE (MRD-00-714)

WHOLE-BODY INHALATION DEVELOPMENTAL TOXICITY STUDY IN RATS WITH GASOLINE WITH ETHANOL VAPOR CONDENSATE (MRD-00-714)

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 16

STUDY COMPLETION DATE: November 13, 2008

APPROVAL SIGNATURES

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

Oct 3, 2008
Date

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

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

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

10/3/08
Date

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

10/1/08
Date

PERSONNEL

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

QUALITY ASSURANCE STATEMENT

STUDY NUMBER: 171434

TEST SUBSTANCE: MRD-00-714

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	29 Oct 01	29 Oct 01	30 Oct 01, 01 Nov 01
Sorbent Tube Sample Collection	10 Dec 01	11 Dec 01	18 Dec 01, 11,14 Jan 02
Feeder Weights	10 Dec 01	11 Dec 01	11,14 Jan 02
Body Weights	11 Dec 01	11 Dec 01	11,14 Jan 02
After Exposure Observations	13 Dec 01	14 Dec 01	18 Dec 01
Final Report	06-29 May 02	29 May 02	09,11 Jul 02
Second Review of Final Report	01-02 Jul 02, 08-10 Jul 02	10 Jul 02	26 Sep 06, 04 Oct 06
Third Review of Final Report	03,15 Aug 06, 25-26 Sep 06	26 Sep 06	28 Sep 06, 04 Oct 06
Fourth Review of Final Report	17 Apr 08	18 Apr 08	18 Apr 08
Fifth Review of Final Report	16 Sep 08	19 Sep 08	23-Sep-08 07-Oct-09

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

Robert Pristas

Robert Pristas, M.S.
Quality Assurance Unit Coordinator

6 Nov '08
Date

Section 1

SUMMARY

This study was conducted to evaluate the potential developmental toxicity of the test substance, Gasoline with Ethanol Vapor Condensate (GEVC). GEVC was administered via whole-body inhalation exposure to pregnant rats during the period of major organogenesis and fetal growth. GEVC 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.

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 cesarian section were eviscerated, processed for skeletal staining, stained for bone and cartilage, and examined for the presence of skeletal malformations and variations.

There was evidence of slight maternal toxicity as indicated by statistically significant decreased body weight changes at the GD 20-21 and GD 5-21 intervals and decreasing linear trends in body weight at the GD 21 interval and in body weight change at the GD 8-11, GD 20-21, GD 5-21, GD 0-21, and GD 0-21C intervals. Similar linear trends were noted in the food consumption data for the majority of the food consumption intervals. At the GD 21 cesarean section two animals in the 2000 mg/m^3 target concentration group and one animal each in the 10,000 and 20,000 mg/m^3 target concentration groups were found to be not pregnant (*i.e*. no evidence of implantation sites). All animals were free of clinical or postmortem effects attributable to treatment with GEVC.

There were no statistically significant differences between the control and the GEVC treated groups for uterine implantation data, fetal body weights, and external and visceral observations. The combined incidence of skeletal variations and malformations were statistically significantly increased ($p \leq 0.05$) in the 10,000 mg/m^3 target exposure group when compared with the control group. This increase was not considered related to exposure as the incidence in the 20,000 mg/m^3 target exposure group was less than the incidence in the control group.

SUMMARY (CONT'D)

In conclusion, administration of gasoline with ethanol vapor condensate to rats by whole-body inhalation exposure during the period of organogenesis and fetal growth resulted in signs of slight maternal toxicity but no signs of developmental toxicity. Therefore, the No Observable Adverse Effect Levels for maternal and developmental toxicity in this study were established at 10,000 mg/m^3 and 20,000 mg/m^3 target concentrations, respectively.

Section 2

INTRODUCTION

This study was conducted to evaluate the developmental toxicity of Gasoline with Ethanol Vapor Condensate (MRD-00-714) 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)

November 8, 2001

EXPERIMENTAL START DATE

November 24, 2001

EXPERIMENTAL TERMINATION DATE

August 6 , 2002

INLIFE TEST PERIOD

November 18, 2001 to December 20, 2001

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

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

EPA, United States Environmental Protection Agency, Good Laboratory Practices (GLP) Standards for Inhalation Exposure Health Effects Testing. 40 CFR, Part 79.60, 1994.

EPA, United States Environmental Protection Agency, Vehicle Emissions Inhalation Exposure Guideline. 40 CFR Part 79.61, 1994.

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

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

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

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

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

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

Section 3

MATERIALS AND METHODS

TEST SUBSTANCE

Substance Identification

EMBSI Identification:	MRD-00-714
Sponsor Identification:	Gasoline with Ethanol Vapor Condensate
Supplier:	Chevron Research and Technology Company
Lot #:	API 01-03
Description:	Colorless liquid
Storage Condition:	Ambient outdoor conditions under nitrogen

Date Received:	Container numbers[a]:	Expiration Date:
April 9, 2001	1 (5), 2 (6), 3 (7), 4 (8), 5 (9), 6 (10), 7 (11), 8 (12),	April 2006
June 14, 2001	9A (9[b],2), 10A (9[b],2), 11A (9[b],2), 12A (9[b],2),	June 14, 2006

[a] - Numbers in () are the Sponsor's tank identification numbers
[b] – Filled from 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.

It was the Sponsor's responsibility to maintain the method of synthesis, fabrication, or derivation of the test fuel. This was not completed when the study initiated but is currently maintained by the Sponsor.

TEST SUBSTANCE (CONT'D)

Analysis of Mixtures

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

Analytical Concentration. The concentration of the test atmosphere in each chamber and the chamber room was determined approximately hourly during each exposure by on-line gas chromatography. The chamber concentrations were measured in the breathing zone of the 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 were used to assess the stability of the test substance over the duration of the study.

Additionally, a sorbent tube sample of the test atmosphere was collected by drawing a known volume of the test atmosphere from each chamber through a calibrated critical orifice once during each week of the study. These samples were stored in a freezer 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 the 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 control chamber and the 20,000 mg/m^3 target concentration. The sample was taken using a multistage cascade impactor. Preweighed glass fiber filters were used to collect aerosol on each stage, which are associated with specific cutoff diameters for aerodynamic particle size in microns. Since minimal aerosol was present, no further calculations were performed.

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
Supplier:	Charles River Laboratories, Inc. Raleigh, North Carolina

Animal Receipt Information (Females)

Receipt Date:	November 6, 2001
Purchase Order Number:	1AM11021

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; additional animals received for mating purposes only.

51 sexually mature males (received for mating purposes only)

Age at Initiation of Mating

Females: Approximately 13 - 14 weeks

Weight at Initiation of Gestation (Designated GD 0)

Females: 232 to 304 grams

TEST SYSTEM (CONT'D)

Animal Identification

Individual ear tags and corresponding cage identification.

Selection

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

Feed

Certified Rodent Diet Meal 5002, ad libitum

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

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

Water

Automatic watering system, ad libitum

Supplier:	ExxonMobil Research and Engineering 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 (CONT'D)

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 80 degrees Fahrenheit (see Protocol Exceptions and Appendix I)
Humidity:	48 to 100 percent relative humidity (see Protocol Exceptions and Appendix I)

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

Light Intensity

Animal Room Light Intensity:	4.6 to 9.0 foot-candles
Chamber Room Light Intensity:	32 to 40 foot-candles

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

TEST SYSTEM (CONT'D)

Environmental Conditions (cont'd)

Chamber Noise Levels and Oxygen Levels

Noise Level: 74.2 to 81.6 db
Oxygen Level: 20.6 to 20.8%
The oxygen level and the noise level were measured in each exposure chamber on the first day of exposures, during the third week of exposures and on the last day of exposures.

EXPERIMENTAL DESIGN

Mating

On the initial scheduled mating day, females were placed in males' cages in a 1:1 (male:female) ratio. Males and females were paired based on sequential Physical Identification Numbers. A sufficient number of animals were co-housed in an attempt to produce an acceptable number of mated animals to accommodate lab scheduling. Mating was confirmed on the following morning by observation of a copulatory plug (vaginal). The day on which mating was confirmed was considered Day 0 of gestation (GD 0). After confirmation of mating, each mated female was returned to its own cage. New females then were placed in the males' cages until the required number of mated females was obtained by continuous cohabitation in consideration of lab scheduling. Mated females subsequently were assigned to dose groups by a computer generated body weight sorting program (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 six 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 cequilibration 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 or plastic and have a total volume of approximately 1.0 M^3. They operated at a flow rate (approximately 12-15 air changes/hour) sufficient to ensure timely equilibration. The flow of air through each chamber was monitored continuously using a calibrated flow measuring device and recorded approximately every 30 minutes. All chambers were maintained at a slight negative pressure. The pressure was monitored continuously and recorded approximately every 30 minutes.

EXPERIMENTAL DESIGN (CONT'D)

The Test Atmosphere

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

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

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

EXPERIMENTAL DESIGN (CONT'D)

Examination of Fetuses

Each 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.

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

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

Section 4

RESULTS AND CONCLUSIONS/DISCUSSION

CLINICAL INLIFE OBSERVATIONS AND SURVIVAL

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

One dam in the 2000 mg/m^3 target exposure group delivered its litter on GD 20, and this dam and its litter were not included in the data at the scheduled cesarean section and terminal sacrifice on GD 21. No other dam delivered a litter prior to the scheduled cesarian section on GD 21. At the GD 21 cesarean section two dams from the 2000 mg/m^3 target concentration group and one animal each in the 10,000 and 20,000 mg/m^3 target concentration groups were found to be not pregnant (*i.e.* no evidence of implantation sites).

There were no clinical signs indicative of maternal toxicity. 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 dam from the 20,000 mg/m^3 target exposure group, dental abnormalities, red ocular discharge and dry red ocular discharge for one dam from the 20,000 mg/m^3 target exposure group and red ano-genital staining (on GD21) for one dam from the 20,000 mg/m^3 target group. Clinical signs were not evident in the dams from the control group or 2000 mg/m^3 and 10,000 mg/m^3 target exposure groups. No observation of any abnormality was made during any of the exposures.

GESTATION BODY WEIGHT

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

There were no statistically significant differences in the mean gestation body weight between treated and control dams at any interval during the gestation period. There also were no statistically significant differences in mean uterine weight between treated and control dams. There were statistically significant decreases in mean body weight change in the 20,000 mg/m^3 target concentration group dams at the GD 20-21 and GD 0-21 intervals. There also were statistically significant linear trends (decreases) in the GD 21 body weight and the body weight change data for the GD 8-11, GD 20-21, GD 5-21, GD 0-21, and GD 0-21C intervals. Based on the statistically significant differences in the GD 20-21 and GD 0-21 intervals for the 20,000 mg/m^3 target concentration group dams and the linear trend (decreases) in the GD 21 body weight and the previously listed body weight change intervals, these data appear to indicate slight maternal toxicity in the 20,000 mg/m^3 target concentration group dams.

RESULTS AND CONCLUSIONS/DISCUSSION (CONT'D)

GESTATION FOOD CONSUMPTION

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

There were no statistically significant differences in mean gestation food consumption between treated and control dams during the gestation period. There were statistically significant linear trends (decreases) in the food consumption data for the GD 5-8, GD 8-11, GD 11-14, GD 20-21, GD 5-20, and GD 0-21 intervals. The trends previously noted in the gestation body weight data are considered a reflection of the trends in the food consumption data.

GROSS POSTMORTEM OBSERVATIONS

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

The gross postmortem examination of the dams revealed discolored intestines filled with dark green material and the stomach filled with dark red material, apparently placenta, in the 2000 mg/m^3 target concentration group dam that delivered on Gestation Day 20. Dark red material was noted in the uterus of one 20,000 mg/m^3 target concentration group dam. Dark red material in the uterus, dark brown material in the stomach and intestines, red anogenital staining, and a fetus in the cervix was observed in another 20,000 mg/m^3 target concentration group dam. These observations appeared to be due to the beginning of the delivery of her litter. Additionally, one other 20,000 mg/m^3 target concentration group dam was noted with red ocular discharge. 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.

FETAL BODY WEIGHT

Mean Fetal Body Weight: Appendix G
Individual Fetal Body Weight: Appendix G
Statistician's Report: Appendix K

There were no statistically significant differences in mean fetal body weight between the control and treated groups.

RESULTS AND CONCLUSIONS/DISCUSSION (CONT'D)

FETAL OBSERVATIONS

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

There were no statistically significant differences between the control and the treated groups for external variations and malformations and visceral variations and malformations. The total skeletal variations on a fetus basis and the incidence of bifid thoracic vertebral centra on both a fetus and litter basis were statistically significantly increased in the 10,000 mg/m^3 target concentration when compared with the control group.

External Observations

External observations were limited to stunted, malrotated hind paw, red material around placenta, and misshapen head. The incidence of stunted fetuses increased with increasing concentration of the test substances. However, the statistical analysis of stunted fetuses did not identify the increasing incidence as a linear dose response trend and the incidence observed in the 20,000 mg/m^3 target concentration group was within the historical control range for the laboratory.

Visceral Observations

Visceral observations were minimal and were limited to low incidences of discolored liver, abnormal abdomen contents (red fluid), raised subcutaneous area on the head, umbilical artery arises from left side of urinary bladder, renal artery aneurysm, hydroureter, hydronephrosis, and misshapen olfactory bulb. All other visceral observations were considered to be artifacts from the handling of the fetuses and not related to fetal toxicity.

Skeletal Observations

Skeletal observations are listed in Appendix H. The combined incidence of skeletal anomalies was statistically significantly increased ($p \leq 0.05$) in the 10,000 mg/m^3 target exposure group when compared with the control group (Appendix K). This increase was not considered related to exposure as the incidence in the 20,000 mg/m^3 target exposure group was less than the incidence in the control group. The skeletal finding was considered a result of multiple testing and is not considered a biological finding. The most frequently noted skeletal observations during fetal examinations were bifid centra of the thoracic vertebrae, rudimentary lumbar ribs, and dumbell shaped anlage of thoracic vertebral centra.

RESULTS AND CONCLUSIONS/DISCUSSION (CONT'D)

EXPOSURE DATA AND CHAMBER CONDITIONS

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

The range of chamber concentrations for the exposure period as represented by the daily mean analytical data and nominal data of each day are listed in Table 4-1:

Table 4-1 - Mean 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	2017	2046	10198	10611	20755	20130
S.D.	75.3	91	285	351.3	398	475.6
Minimum	1860	1929	9719	9553	19813	19183
Maximum	2223	2258	10724	11026	21537	20908

S.D. - Standard deviation

Satisfactory chamber uniformity was observed for the 12 points in each chamber that were analyzed.

The particle size determination for the control chamber and 20,000 mg/m^3 target concentration chamber detected particles at a level of 1.0 and 1.5 mg/m^3 for each chamber, 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 20.8% at the intervals when they were monitored. The noise level in the chambers ranged from 74.2 to 81.6 db. The light intensity in the chamber rooms ranged from 32 foot-candles to 40 foot-candles.

DISCUSSION

There was evidence of slight maternal toxicity in this study in the 20,000 mg/m^3 target concentration dams as indicated by a statistically significant decrease in the GD 20-21 and GD 0-21 body weight change intervals and statistically significant linear trends (decreases) in the GD 21 body weight and the body weight change data for the GD 8-11, GD 20-21, GD 5-21, GD 0-21, and GD 0-21C intervals. The decreases in body weight change are a reflection of the statistically significant trends in decreased food consumption that were noted for the majority of the food consumption intervals.

There were no statistically significant differences between the control and the GEVC treated groups for uterine implantation data, fetal body weights, and external and visceral observations. The total skeletal anomalies were statistically significantly increased in the 10,000 mg/m^3 target concentration group when compared with the control group. The increase in skeletal variations on a fetus basis in the 10,000 mg/m^3 target concentration group is due predominantly to the increased incidence of bifid thoracic vertebral centra in that group. These increases were not considered related to administration of the test substance due to the lack of a dose response. The incidence of both total fetal skeletal variations and bifid thoracic vertebral centra in the 20,000 mg/m^3 target concentration group were less than the control group. The increase in bifid thoracic vertebral centra in the 10,000 mg/m^3 target concentration group and the resulting increase in total fetal skeletal variations in the same group were attributed to biological variation.

In conclusion, administration of gasoline with ethanol vapor condensate to rats by whole-body inhalation exposure during the period of organogenesis and fetal growth produced slight signs of maternal toxicity as indicated by decreases in the body weight change data, but no sign of developmental toxicity. Therefore, the No Observable Adverse Effect Level for maternal and developmental toxicity were considered to be 10,000 mg/m^3 and 20,000 mg/m^3 target concentrations, respectively.

PROTOCOL EXCEPTIONS

GESTATION DAY 0 BODY WEIGHT: The Gestation Day 0 body weight for animal IGK787 was 304 grams, which exceeded the acceptable range of 200-300 grams specified in the protocol.

GESTATION OBSERVATIONS NOT PERFORMED: The gestation observations were not performed on Gestation Day 20 for two control dams due to a technician oversight.

FETAL BODY WEIGHT: One fetal body weight was inadvertently not recorded for dam IGK837.

MEAN CHAMBER CONCENTRATION: The mean chamber concentration for the 2000 mg/m^3 treatment group chambers was 2223 on November 25, 2001, which was outside the acceptable range (± 10%).

ANALYTICAL SAMPLES: There is no data for the 20,000 mg/m^3 target concentration group for the December 10, 2001 sampling, due to breakthrough on the sorbent tube.

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 decreased temperature also caused the humidity in all chambers to be above the protocol-defined range on numerous occasions. The individual temperature and humidity deviations are noted in Appendix I, Table I-7 as values in bold italics. There also were instances in the 10,000 mg/m^3 target concentration chamber where the mean temperature was above the protocol-defined range. The mean temperature and humidity deviations are noted in Appendix I, Table I-3 as values in bold italics.

A second viability was not performed on December 8, as required by protocol.

Lighting, noise and oxygen levels were measured on Day 15 of the study, not during the second week, as stated in the protocol.

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
(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 (CONT'D)

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

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, umbilicus.

Viseral: 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 (*i.e.*. "*"). Discolored tissues, abnormal contents, *etc*. are examples of observations. Observations may or may not be a developmental toxicity endpoint.

Section 6

REFERENCES

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.

Chen, Gaylor, and Laborde, "Dose-response modeling of growth for developmental toxicity", Environmetrics, vol 7, pg 135-144, 1996.

Dunnett, C., New Tables for Multiple Comparisons with a Control, Biometrics 20, 1964, pp. 482-491.

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.

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.

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.

Hollander, M. and Wolfe, D.A. Nonparametric Statistical Methods, John Wiley and Sons, New York, 1973.

Little, Milliken, Stroup, and Wolfinger, "SAS System for Mixed Models", SAS Institute, Cary, NC, 1997, section 5.6.2, pg 203.

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

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

REFERENCES (CONT'D)

SAS/STAT, V8.02, copyright © 1999-2001, SAS Institute, Inc., Cary, NC.

Snedecor, G.W., and Cochran, W.G., Statistical Methods, 8th ed., Iowa State University Press, Ames, Iowa, 1989.

Staples, R.E., Detection of Visceral Alterations in Mammalian Fetus, Teratology, 9:A-37, 1974.

Stuckhardt, J.L. and Poppe, S.M., Fresh Visceral Examination of Rat and Rabbit Fetuses Used in Teratogenicity Testing, Terato. Carcino. Mutagen., 4, 1984, pp. 181-188.

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

ANIMAL	GD																				
NUMBER	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
IGK736 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK775 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK747 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK772 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK748 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK753 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK765 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK776 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK799 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK738 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK795 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK758 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK763 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK777 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK809 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK825 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK829 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK804 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK817 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK823 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK848 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK836 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK805 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK830 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK853 (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
IGK754 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK755 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK770 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK737 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK785 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IGK774 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK740 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK759 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK778 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK766 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK780 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK741 (20)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=D	
IGK807 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK819 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK837 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK838 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IGK784 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK789 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK782 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK843 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK811 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK845 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK862 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK864 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK827 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P

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

ANIMAL	GD:																				
NUMBER	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
IGK731 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK732 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK792 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IGK742 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK749 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK756 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK762 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK769 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK773 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK790 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK814 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK800 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK796 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK828 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK812 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK831 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK842 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK813 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK847 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK835 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK787 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK803 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK806 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK810 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK852 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P

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

ANIMAL	GD:																				
NUMBER	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
IGK733 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK781 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK743 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK783 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK735 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK797 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK764 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK771 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK791 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK751 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK761 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK768 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK801 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK757 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK808 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK826 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK832 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK834 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK846 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IGK798 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK818 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK850 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK802 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK821 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IGK849 (21)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P

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

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

GESTATION DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	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	22
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	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
NO OBSERVABLE ABNORMALITIES																						
0 MG/M^3	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	23	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	22
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	24	23	23	23	23	23	23	23	23	23	23	24	23	23	22	23	23	23	23	23	23	22
ALOPECIA TRUNK																						
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	1	0	0	0	0	0	0	0
DRY RED OCULAR DISCHARGE																						
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	1	1	1	1	1	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0
RED OCULAR DISCHARGE																						
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	1	1	0	1	0	0	1	1	1	1	1	1	1

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
DENTAL ABNORMALITIES																						
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	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RED ANOGENITAL STAINING																						
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	0	1
OBSERVATION NOT RECORDED																						
0 MG/M^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	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	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	1	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	0	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
IGK736																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+
	OBSERVATION NOT RECORDED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
IGK775																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+
	OBSERVATION NOT RECORDED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
IGK747																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK772																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK748																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK753																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK765																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK776																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK799																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK738																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK795																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK758																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK763																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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

ANIMAL NUMBER	OBSERVATION	DAY:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
IGK777	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK809	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK825	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK829	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK804	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK817	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK823	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK848	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK836	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK805	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK830	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK853	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
IGK754																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK755																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK770																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK737																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK785																								
	ANIMAL NOT PREGNANT																							
IGK774																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK740																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK759																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK778																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK766																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK780																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK741																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-
	DELIVERY IN PROGRESS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
IGK807																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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

ANIMAL NUMBER	OBSERVATION	DAY:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
IGK819																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK837																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK838																								
	ANIMAL NOT PREGNANT																							
IGK784																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK789																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK782																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK843																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK811																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK845																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK862																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK864																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK827																								
	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
IGK731																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK732																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK792																								
	ANIMAL NOT PREGNANT																							
IGK742																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK749																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK756																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK762																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK769																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK773																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK790																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK814																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK800																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK796																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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

ANIMAL NUMBER	OBSERVATION	DAY:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
IGK828																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK812																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK831																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK842																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK813																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK847																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK835																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK787																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK803																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK806																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK810																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK852																								
	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
IGK733	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK781	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK743	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK783	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK735	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK797	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK764	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK771	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK791	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK751	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK761	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK768	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK801	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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

ANIMAL NUMBER	OBSERVATION	DAY:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
IGK757																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-
	RED ANOGENITAL STAINING		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
IGK808																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK826																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK832																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK834																								
	NO OBSERVABLE ABNORMALITIES		+	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
	DRIED RED DISCHARGE, LEFT EYE		-	+	+	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	-
	RED DISCHARGE, LEFT EYE		-	-	-	-	-	-	-	-	-	+	+	-	+	-	-	+	+	+	+	+	+	+
	DENTAL ABNORMALITIES		-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IGK846																								
	ANIMAL NOT PREGNANT																							
IGK798																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK818																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK850																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK802																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK821																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IGK849																								
	NO OBSERVABLE ABNORMALITIES		+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	+
	ALOPECIA TRUNK		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(MEAN GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR STATISTICAL SYMBOLS ON PAGES 5-1 AND 5-2)
BODY WEIGHT (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	K-J-	A-L-
0 MG/M^3										
MEAN	265.2	297.6	305.8	320	334.2	366.5	418.8	441.0	119.5	321.5
STD.DEV.	13.3	16	18	19.1	19.3	20.5	26.4	27.7	21.4	18.8
(N)	25	25	25	25	25	25	25	25	25	25
2000 MG/M^3										
MEAN	264.8	296.5	306.4	320.3	332.7	364.8	414.3	438.0	117.7	320.3
STD.DEV.	15.6	19	20	22.6	22	24.6	29	29.3	11.1	23.2
(N)	22	22	22	22	22	22	22	22	22	22
10000 MG/M^3										
MEAN	265.2	295.9	303.3	314.7	329.8	358.7	409.7	428.0	110.3	317.7
STD.DEV.	15.3	17	18.1	19.6	20.6	23.1	28	32.5	16	22.3
(N)	24	24	24	24	24	24	24	24	24	24
20000 MG/M^3										
MEAN	265.2	296.4	303.1	314.6	327.9	358.6	410.1	423.7	112.9	310.8
STD.DEV.	13.4	18.2	20.1	21.6	25.1	27.7	32.9	29.7	22.3	23.8
(N)	24	24	24	24	24	24	24	23	23	23

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(MEAN GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR STATISTICAL SYMBOLS ON PAGES 5-1 AND 5-2)
BODY WEIGHT CHANGE (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-	KJ+	AL+	AL+	A-L+
0 MG/M^3										
MEAN	32.4	8.2	14.3	14.2	32.2	52.4	22.2	143.4	175.8	56.3
STD.DEV.	7.1	5	4.7	4.3	7.8	9.6	5.6	21.1	23.9	11.7
(N)	25	25	25	25	25	25	25	25	25	25
2000 MG/M^3										
MEAN	31.8	9.9	13.9	12.5	32	49.5	23.7	141.5	173.3	55.5
STD.DEV.	6.2	4.5	6.3	4.8	5.9	8.6	6.6	18.6	20.7	14.2
(N)	22	22	22	22	22	22	22	22	22	22
10000 MG/M^3										
MEAN	30.7	7.4	11.4	15.1	28.9	51	18.3	132.1	162.8	52.5
STD.DEV.	5.7	6	4.6	3.8	7	7.9	11.5	19.9	22.1	13.9
(N)	24	24	24	24	24	24	24	24	24	24
20000 MG/M^3							*		*	
MEAN	31.2	6.8	11.5	13.3	30.7	51.5	17.7	129.2	159.4	46.5
STD.DEV.	7.7	5.6	5.1	4.7	6.1	8.9	6.6	21.3	20.8	15.9
(N)	24	24	24	24	24	24	23	23	23	23

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)
(GRAMS)
TARGET 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
IGK736F	264	305	312	329	347	379	443	461	321	140
IGK775F	242	274	280	288	303	337	381	399	290	109
IGK747F	273	302	316	340	345	387	433	458	336	122
IGK772F	263	299	321	332	341	372	430	453	331	122
IGK748F	256	290	298	312	328	360	409	430	319	111
IGK753F	255	279	288	295	311	351	402	430	304	126
IGK765F	244	286	294	302	318	356	410	434	297	137
IGK776F	261	312	323	338	349	385	451	479	347	132
IGK799F	270	299	306	317	334	364	435	443	295	148
IGK738F	261	284	292	303	317	353	401	430	311	119
IGK795F	254	274	283	299	316	341	394	422	310	112
IGK758F	293	338	356	373	396	432	494	520	370	150
IGK763F	261	286	292	306	320	352	407	423	313	110
IGK777F	271	299	308	316	333	372	419	440	316	124
IGK809F	259	292	295	313	326	346	393	407	315	92
IGK825F	244	276	282	302	313	348	399	428	299	129
IGK829F	268	300	304	319	334	367	416	434	322	112
IGK804F	292	332	335	354	362	392	444	468	347	121
IGK817F	270	299	304	322	339	380	443	466	319	147
IGK823F	268	298	297	314	322	354	392	414	316	98
IGK848F	276	304	312	326	336	377	434	463	335	128
IGK836F	288	320	332	340	352	363	394	407	349	58
IGK805F	269	300	315	324	346	384	451	472	324	148
IGK830F	270	300	303	320	333	349	389	410	321	89
IGK853F	258	291	296	317	335	361	407	434	330	104

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

ANIMAL NUMBER		GD 0	GD 5	GD 8	GD 11	GD 14	GD 17	GD 20	GD 21	GD 21C	UTERINE WEIGHT
IGK754F		256	280	289	297	307	332	351	391	278	113
IGK755F		245	263	269	276	293	321	368	395	283	112
IGK770F		287	317	329	341	347	372	428	447	326	121
IGK737F		267	296	302	314	322	346	393	406	308	98
IGK785F	NP										
IGK774F		260	289	302	315	328	365	417	445	314	131
IGK740F		232	268	281	296	310	351	406	429	303	126
IGK759F		267	311	321	336	349	379	418	429	327	102
IGK778F		264	296	310	344	344	375	429	447	326	121
IGK766F		240	271	282	288	303	331	375	396	297	99
IGK780F		297	339	346	357	377	412	456	479	360	119
IGK741F	D	266	300	315	329	359	397	473	D	D	D
IGK807F		278	307	309	323	341	376	427	449	325	124
IGK819F		254	284	297	308	321	341	389	409	310	99
IGK837F		272	296	309	333	342	377	432	463	347	116
IGK838F	NP										
IGK784F		281	319	334	352	362	401	459	479	345	134
IGK789F		266	298	317	331	342	376	437	467	331	136
IGK782F		278	317	327	334	356	382	431	454	342	112
IGK843F		248	275	278	288	302	330	383	401	286	115
IGK811F		257	286	288	297	312	345	393	413	298	115
IGK845F		270	308	323	337	352	389	443	474	349	125
IGK862F		278	314	321	339	348	389	446	474	345	129
IGK864F		259	292	299	312	324	360	412	438	313	125
IGK827F		269	298	308	328	338	375	422	452	334	118

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

ANIMAL NUMBER	GD 0	GD 5	GD 8	GD 11	GD 14	GD 17	GD 20	GD 21	GD 21C	UTERINE WEIGHT
IGK731F	256	288	279	294	309	344	386	409	303	106
IGK732F	288	324	326	342	357	392	452	470	344	126
IGK792F NP										
IGK742F	291	322	334	351	372	410	469	490	361	129
IGK749F	243	269	288	295	316	335	388	405	296	109
IGK756F	237	272	284	298	315	344	382	399	310	89
IGK762F	269	299	314	323	340	369	429	456	338	118
IGK769F	261	285	289	303	318	345	395	416	301	115
IGK773F	266	297	308	322	339	373	418	439	316	123
IGK790F	262	282	292	309	323	347	396	421	324	97
IGK814F	259	297	310	309	327	358	398	418	314	104
IGK800F	264	295	301	307	324	348	388	400	305	95
IGK796F	270	288	298	307	324	354	404	417	316	101
IGK828F	244	271	273	278	289	307	345	355	284	71
IGK812F	285	319	331	342	362	380	441	475	354	121
IGK831F	271	299	308	316	327	351	408	428	310	118
IGK842F	259	293	297	312	317	353	409	427	305	122
IGK813F	251	286	287	302	319	352	407	414	302	112
IGK847F	264	299	300	314	327	365	424	451	319	132
IGK835F	270	313	314	330	347	381	439	465	343	122
IGK787F	304	337	348	364	377	403	449	476	361	115
IGK803F	264	290	294	302	312	347	406	426	304	122
IGK806F	262	297	306	315	326	356	406	434	322	112
IGK810F	267	294	305	312	330	364	422	395	279	116
IGK852F	258	286	293	305	318	330	372	386	313	73

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

ANIMAL NUMBER	GD 0	GD 5	GD 8	GD 11	GD 14	GD 17	GD 20	GD 21	GD 21C	UTERINE WEIGHT
IGK733F	249	283	298	318	329	363	415	435	320	115
IGK781F	251	280	283	296	306	332	383	410	305	105
IGK743F	260	294	303	315	324	345	397	411	292	119
IGK783F	267	299	303	312	327	357	406	428	311	117
IGK735F	273	303	317	331	345	377	434	450	333	117
IGK797F	267	311	316	324	335	348	372	376	353	23
IGK764F	260	291	287	299	310	344	395	408	290	118
IGK771F	244	267	264	269	274	300	342	357	262	95
IGK791F	267	297	312	316	332	356	402	420	322	98
IGK751F	264	291	304	310	327	356	415	427	299	128
IGK761F	267	306	312	320	330	361	415	430	293	137
IGK768F	268	298	303	312	327	366	421	439	321	118
IGK801F	251	269	277	294	304	336	387	396	286	110
IGK757F DP	285	340	352	376	403	443	506	484	351	133
IGK808F	273	302	307	317	335	369	421	447	326	121
IGK826F	259	278	289	296	306	340	391	411	287	124
IGK832F	258	291	290	303	315	348	397	416	301	115
IGK834F	276	314	312	333	345	376	434	442	327	115
IGK846F NP										
IGK798F	293	325	335	342	358	397	451	474	348	126
IGK818F	264	288	292	303	317	351	415	434	305	129
IGK850F	237	263	268	281	291	320	362	372	274	98
IGK802F	287	314	321	328	341	366	427	455	332	123
IGK821F	277	309	318	330	353	388	450	476	345	131
IGK849F	267	300	312	326	336	368	405	431	316	115

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

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-20	GD 20-21	GD 5-21	GD 0-21	GD 0-21C
IGK736F	41	7	17	18	32	64	18	156	197	57
IGK775F	32	6	8	15	34	44	18	125	157	48
IGK747F	29	14	24	5	42	46	25	156	185	63
IGK772F	36	22	11	9	31	58	23	154	190	68
IGK748F	34	8	14	16	32	49	21	140	174	63
IGK753F	24	9	7	16	40	51	28	151	175	49
IGK765F	42	8	8	16	38	54	24	148	190	53
IGK776F	51	11	15	11	36	66	28	167	218	86
IGK799F	29	7	11	17	30	71	8	144	173	25
IGK738F	23	8	11	14	36	48	29	146	169	50
IGK795F	20	9	16	17	25	53	28	148	168	56
IGK758F	45	18	17	23	36	62	26	182	227	77
IGK763F	25	6	14	14	32	55	16	137	162	52
IGK777F	28	9	8	17	39	47	21	141	169	45
IGK809F	33	3	18	13	20	47	14	115	148	56
IGK825F	32	6	20	11	35	51	29	152	184	55
IGK829F	32	4	15	15	33	49	18	134	166	54
IGK804F	40	3	19	8	30	52	24	136	176	55
IGK817F	29	5	18	17	41	63	23	167	196	49
IGK823F	30	-1	17	8	32	38	22	116	146	48
IGK848F	28	8	14	10	41	57	29	159	187	59
IGK836F	32	12	8	12	11	31	13	87	119	61
IGK805F	31	15	9	22	38	67	21	172	203	55
IGK830F	30	3	17	13	16	40	21	110	140	51
IGK853F	33	5	21	18	26	46	27	143	176	72

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

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-20	GD 20-21	GD 5-21	GD 0-21	GD 0-21C
IGK754F	24	9	8	10	25	19	40	111	135	22
IGK755F	18	6	7	17	28	47	27	132	150	38
IGK770F	30	12	12	6	25	56	19	130	160	39
IGK737F	29	6	12	8	24	47	13	110	139	41
IGK785F NP										
IGK774F	29	13	13	13	37	52	28	156	185	54
IGK740F	36	13	15	14	41	55	23	161	197	71
IGK759F	44	10	15	13	30	39	11	118	162	60
IGK778F	32	14	34	0	31	54	18	151	183	62
IGK766F	31	11	6	15	28	44	21	125	156	57
IGK780F	42	7	11	20	35	44	23	140	182	63
IGK741F D	34	15	14	30	38	76	D	D	D	D
IGK807F	29	2	14	18	35	51	22	142	171	47
IGK819F	30	13	11	13	20	48	20	125	155	56
IGK837F	24	13	24	9	35	55	31	167	191	75
IGK838F NP										
IGK784F	38	15	18	10	39	58	20	160	198	64
IGK789F	32	19	14	11	34	61	30	169	201	65
IGK782F	39	10	7	22	26	49	23	137	176	64
IGK843F	27	3	10	14	28	53	18	126	153	38
IGK811F	29	2	9	15	33	48	20	127	156	41
IGK845F	38	15	14	15	37	54	31	166	204	79
IGK862F	36	7	18	9	41	57	28	160	196	67
IGK864F	33	7	13	12	36	52	26	146	179	54
IGK827F	29	10	20	10	37	47	30	154	183	65

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

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-20	GD 20-21	GD 5-21	GD 0-21	GD 0-21C
IGK731F	32	-9	15	15	35	42	23	121	153	47
IGK732F	36	2	16	15	35	60	18	146	182	56
IGK792F NP										
IGK742F	31	12	17	21	38	59	21	168	199	70
IGK749F	26	19	7	21	19	53	17	136	162	53
IGK756F	35	12	14	17	29	38	17	127	162	73
IGK762F	30	15	9	17	29	60	27	157	187	69
IGK769F	24	4	14	15	27	50	21	131	155	40
IGK773F	31	11	14	17	34	45	21	142	173	50
IGK790F	20	10	17	14	24	49	25	139	159	62
IGK814F	38	13	-1	18	31	40	20	121	159	55
IGK800F	31	6	6	17	24	40	12	105	136	41
IGK796F	18	10	9	17	30	50	13	129	147	46
IGK828F	27	2	5	11	18	38	10	84	111	40
IGK812F	34	12	11	20	18	61	34	156	190	69
IGK831F	28	9	8	11	24	57	20	129	157	39
IGK842F	34	4	15	5	36	56	18	134	168	46
IGK813F	35	1	15	17	33	55	7	128	163	51
IGK847F	35	1	14	13	38	59	27	152	187	55
IGK835F	43	1	16	17	34	58	26	152	195	73
IGK787F	33	11	16	13	26	46	27	139	172	57
IGK803F	26	4	8	10	35	59	20	136	162	40
IGK806F	35	9	9	11	30	50	28	137	172	60
IGK810F	27	11	7	18	34	58	-27	101	128	12
IGK852F	28	7	12	13	12	42	14	100	128	55

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

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-20	GD 20-21	GD 5-21	GD 0-21	GD 0-21C
IGK733F	34	15	20	11	34	52	20	152	186	71
IGK781F	29	3	13	10	26	51	27	130	159	54
IGK743F	34	9	12	9	21	52	14	117	151	32
IGK783F	32	4	9	15	30	49	22	129	161	44
IGK735F	30	14	14	14	32	57	16	147	177	60
IGK797F	44	5	8	11	13	24	4	65	109	86
IGK764F	31	-4	12	11	34	51	13	117	148	30
IGK771F	23	-3	5	5	26	42	15	90	113	18
IGK791F	30	15	4	16	24	46	18	123	153	55
IGK751F	27	13	6	17	29	59	12	136	163	35
IGK761F	39	6	8	10	31	54	15	124	163	26
IGK768F	30	5	9	15	39	55	18	141	171	53
IGK801F	18	8	17	10	32	51	9	127	145	35
IGK757F DP	55	12	24	27	40	63	-22	144	199	66
IGK808F	29	5	10	18	34	52	26	145	174	53
IGK826F	19	11	7	10	34	51	20	133	152	28
IGK832F	33	-1	13	12	33	49	19	125	158	43
IGK834F	38	-2	21	12	31	58	8	128	166	51
IGK846F NP										
IGK798F	32	10	7	16	39	54	23	149	181	55
IGK818F	24	4	11	14	34	64	19	146	170	41
IGK850F	26	5	13	10	29	42	10	109	135	37
IGK802F	27	7	7	13	25	61	28	141	168	45
IGK821F	32	9	12	23	35	62	26	167	199	68
IGK849F	33	12	14	10	32	37	26	131	164	49

NOTE: LP – ANIMAL NOT PREGNANT GD – GESTATION DAY
D – LITTER DELIVERED; WEIGHTS NOT USED FOR STATISTICAL ANALYSES
DP - DELIVERY IN PROGRESS ON GD 21; GD 21 WEIGHTS NOT USED FOR STATISTICAL ANALYSES

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	A-L	A-L-	A-L-	K-J	A-L	A-L
0 MG/M^3									
MEAN	123.0	73.4	73.6	75.3	77.7	82.7	25.6	381.3	529.2
STD.DEV.	9.2	7.4	7.8	7.0	5.7	6.1	3.1	29.4	38.8
(N)	25	25	25	24	24	25	25	24	24
2000 MG/M^3									
MEAN	122.3	73.3	72.0	74.2	77.5	80.4	25.5	377.5	525.2
STD.DEV.	13.3	6.8	10.0	6.0	10.4	6.9	3.8	33.2	46.7
(N)	22	22	22	22	22	22	22	22	22
10000 MG/M^3									
MEAN	121.5	69.3	68.5	71.1	73.4	78.7	24.4	361.0	506.8
STD.DEV.	10.5	5.5	6.0	6.8	6.5	6.1	5.8	26.8	37.1
(N)	24	24	24	24	24	24	24	24	24
20000 MG/M^3									
MEAN	122.1	69.4	69.2	71.3	74.3	80.3	23.9	364.5	504.5
STD.DEV.	13.2	8.7	7.4	8.2	8.6	7.8	3.4	38.2	41.1
(N)	24	24	24	24	24	24	23	24	23

NOTE: GD - GESTATION DAY

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

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-20	GD 20-21
IGK736F	125	73	75	81	78	80	24
IGK775F	118	71	67	70	73	77	23
IGK747F	135	85	90	N	N	89	31
IGK772F	126	82	75	82	80	90	28
IGK748F	124	73	71	75	76	78	23
IGK753F	116	70	78	73	79	85	26
IGK765F	122	71	64	68	70	73	23
IGK776F	144	90	87	81	82	87	30
IGK799F	114	66	64	71	67	83	17
IGK738F	112	72	67	68	72	77	27
IGK795F	129	71	75	74	71	80	26
IGK758F	137	89	95	98	92	101	30
IGK763F	112	67	67	68	73	81	21
IGK777F	117	75	71	74	79	81	24
IGK809F	128	74	75	75	74	85	25
IGK825F	109	67	70	67	79	78	26
IGK829F	114	70	69	71	79	86	24
IGK804F	141	79	81	83	81	86	27
IGK817F	117	70	72	75	86	85	27
IGK823F	115	60	67	71	75	74	25
IGK848F	119	68	70	70	77	79	26
IGK836F	127	82	75	82	77	79	24
IGK805F	126	75	70	76	83	86	28
IGK830F	121	67	68	73	75	77	26
IGK853F	126	69	78	82	86	90	30

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

ANIMAL NUMBER		GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-20	GD 20-21
IGK754F		101	66	59	62	62	69	18
IGK755F		95	60	56	62	62	66	22
IGK770F		129	78	81	76	73	85	23
IGK737F		111	76	67	69	65	73	25
IGK785F	NP							
IGK774F		116	67	70	68	73	72	30
IGK740F		109	75	68	68	76	78	24
IGK759F		145	79	85	83	80	81	22
IGK778F		128	80	73	80	80	82	24
IGK766F		113	65	78	72	71	74	25
IGK780F		141	81	78	80	80	90	25
IGK741F	D	121	76	78	86	85	88	D
IGK807F		133	75	77	78	82	85	26
IGK819F		126	75	70	76	66	73	21
IGK837F		110	73	76	78	82	90	31
IGK838F	NP							
IGK784F		135	83	87	79	86	86	26
IGK789F		127	78	78	76	111	89	33
IGK782F		135	78	79	85	78	82	25
IGK843F		111	67	63	70	70	79	22
IGK811F		116	65	65	72	79	77	24
IGK845F		139	85	80	77	85	86	32
IGK862F		130	68	76	75	82	85	28
IGK864F		121	70	74	74	83	84	26
IGK827F		119	68	45	72	80	83	29

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

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-20	GD 20-21
IGK731F	120	66	65	69	68	72	24
IGK732F	125	65	68	74	79	84	25
IGK792F NP							
IGK742F	132	79	82	85	88	92	27
IGK749F	103	65	60	67	63	69	21
IGK756F	109	69	69	72	71	74	25
IGK762F	122	78	70	77	75	83	30
IGK769F	120	68	69	67	71	75	26
IGK773F	115	74	75	76	76	75	26
IGK790F	114	65	70	74	73	80	27
IGK814F	124	71	64	65	68	70	19
IGK800F	114	66	68	71	74	81	23
IGK796F	108	68	61	66	73	80	24
IGK828F	104	62	58	58	62	68	19
IGK812F	141	83	76	79	73	83	34
IGK831F	120	74	64	63	65	74	25
IGK842F	121	68	66	63	71	78	22
IGK813F	121	65	66	72	78	83	22
IGK847F	124	67	67	72	82	84	28
IGK835F	135	70	70	74	78	77	31
IGK787F	142	73	82	84	84	84	27
IGK803F	116	61	63	65	69	77	25
IGK806F	130	71	72	69	77	78	29
IGK810F	135	72	70	79	78	90	3
IGK852F	121	64	68	65	66	77	23

APPENDIX D - GESTATION FOOD CONSUMPTION
(INDIVIDUAL GESTATION FOOD CONSUMPTION)
(GRAMS)
TARGET DOSE: 20000 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
IGK733F		124	79	79	78	83	88	24
IGK781F		121	65	66	68	65	77	24
IGK743F		109	72	73	68	67	76	21
IGK783F		122	63	62	67	69	73	24
IGK735F		123	80	74	77	77	87	26
IGK797F		133	72	71	73	71	83	26
IGK764F		118	59	63	67	71	74	22
IGK771F		109	56	53	50	58	61	23
IGK791F		111	77	71	73	78	83	26
IGK751F		126	72	67	67	66	74	18
IGK761F		124	70	70	67	68	73	16
IGK768F		116	69	70	74	84	86	23
IGK801F		97	57	66	66	74	80	22
IGK757F	DP	159	90	87	94	96	98	10
IGK808F		123	74	66	76	75	82	24
IGK826F		105	69	68	70	74	77	23
IGK832F		115	64	61	68	76	79	27
IGK834F		127	64	66	69	71	80	20
IGK846F	NP							
IGK798F		147	83	78	84	83	93	32
IGK818F		115	62	65	66	73	84	24
IGK850F		115	60	61	65	69	73	22
IGK802F		126	60	67	68	65	76	27
IGK821F		131	75	77	79	88	90	27
IGK849F		135	74	79	76	83	81	28

NOTE: GD - GESTATION DAY NP - NOT PREGNANT
S - NOT MEASURED DUE TO EXCESS SPILLAGE
N - FEEDER WEIGHTS INADVERTENTLY NOT RECORDED
DP - DELIVERY IN PROGRESS ON GD 21; GD 21 VALUE NOT USED FOR STATISTICAL ANALYSES

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	24	25	25
NO OBSERVABLE ABNORMALITIES	25	24	25	22
NO EVIDENCE OF UTERINE IMPLANTATION SITES	0	2	1	1
EYE: Red discharge	0	0	0	1
INTESTINES: Discolored	0	1 (C)	0	0
UTERUS: Abnormal contents (Dark red material)	0	0	0	1
ANIMAL DELIVERED PRIOR TO SCHEDULED C-SECTION	0	1	0	0(B)
CERVIX: Abnormal contents (Fetus)	0	0	0	1
GENERAL CONDITION: Anogenital staining	0	0	0	1
STOMACH and/or INTESTINES: Abnormal contents (Green or dark red material)	0	1 (C)	0	1
UTERUS: Abnormal contents (Dark red material)	0	0	0	1

NOTES: (A) - INCLUDES NON-PREGNANT ANIMALS
(B) – DELIVERY HAD STARTED FOR ONE DAM BUT NO PUPS HAD BEEN DELIVERED
(C) - ANIMAL DELIVERD EARLY, NOT INCLUDED IN TOTAL AT TERM SACRIFICE

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

TARGET DOSE: 0 MG/M^3

IGK736F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK775F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK747F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK772F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK748F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK753F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK765F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK776F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK799F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK738F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK795F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK758F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK763F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK777F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK809F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK825F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK829F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK804F - ALL TISSUES AND ORGANS: No observable abnormalities

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

TARGET DOSE: 0 MG/M^3 (CONT'D)

IGK817F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK823F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK848F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK836F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK805F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK830F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK853F - ALL TISSUES AND ORGANS: No observable abnormalities.

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

TARGET DOSE: 2000 MG/M^3

IGK754F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK755F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK770F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK737F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK785F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of uterine implantation sites.

IGK774F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK740F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK759F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK778F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK766F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK780F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK741F - EARLY DELIVERY/EUTHANASIA: Gestation Day 20
INTESTINES: Discolored, filled with dark green material.
STOMACH: Filled with dark red material, apparent placenta.
IMPLANTATION SITES (Right): 10 (Left): 9
CORPORA LUTEA (Right): 11 (Left): 10
GENERAL COMMENTS: 17 Live pups delivered.
TERMINAL BODY WEIGHT: 473 grams

IGK807F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK819F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK837F - ALL TISSUES AND ORGANS: No observable abnormalities.

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

TARGET DOSE: 2000 MG/M^3 (CONT'D)

IGK838F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of uterine implantation sites.

IGK784F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK789F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK782F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK843F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK811F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK845F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK862F - ALL TISSUES AND ORGANS: No observable abnormalities

IGK864F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK827F - ALL TISSUES AND ORGANS: No observable abnormalities.

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

TARGET DOSE: 10,000 MG/M^3

IGK731F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK732F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK792F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of uterine implantation sites.

IGK742F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK749F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK756F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK762F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK769F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK773F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK790F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK814F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK800F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK796F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK828F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK812F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK831F - ALL TISSUES AND ORGANS: No observable abnormalities.

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

TARGET DOSE: 10,000 MG/M^3 (CONT'D)

IGK842F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK813F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK847F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK835F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK787F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK803F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK806F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK810F - ALL TISSUES AND ORGANS: No observable abnormalities

IGK852F - ALL TISSUES AND ORGANS: No observable abnormalities.

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

TARGET DOSE: 20,000 MG/M^3

IGK733F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK781F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK743F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK783F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK735F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK797F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK764F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK771F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK791F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK751F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK761F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK768F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK801F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK757F - INTESTINES: Dark brown material.
STOMACH: Dark brown material.
UTERUS (Right horn): Dark red material.
GENERAL CONDITIONS: 1 fetus in cervix, red ano-genital staining.

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

TARGET DOSE: 20,000 MG/M^3 (CONT'D)

IGK808F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK826F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK832F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK834F - EYE (Left): Red ocular discharge.

IGK846F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of uterine implantation sites.

IGK798F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK818F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK850F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK802F - ALL TISSUES AND ORGANS: No observable abnormalities.

IGK821F - UTERUS (Right horn): Dark red material.

IGK849F - 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 K-J-	Male Fetuses A-L-	Female Fetuses A-L-	Resorptions A-L-	Implantation Sites K-J-	Corpora Lutea K-J-	Total Dead K-J-	Fetuses/ Implantation A-L-	Resorptions/ Implantation A-L-
0 MG/M^3									
MEAN	15.56	7.92	7.64	0.32	15.88	16.4	0	0.98	0.02
STD.DEV.	2.92	2.64	2.38	0.56	2.88	2.99	0	0.04	0.03
(N)	25	25	25	25	25	25	25	25	25
2000 MG/M^3									
MEAN	15.55	7.77	7.77	0.41	15.95	16.36	0	0.97	0.03
STD.DEV.	1.47	2.14	2.25	0.67	1.17	1.33	0	0.04	0.04
(N)	22	22	22	22	22	22	22	22	22
10000 MG/M^3									
MEAN	14.75	7.46	7.29	0.46	15.21	16.29	0	0.97	0.03
STD.DEV.	2.52	2.36	2.66	0.66	2.54	2.01	0	0.04	0.04
(N)	24	24	24	24	24	24	24	24	24
20000 MG/M^3									
MEAN	15.21	7.33	7.88	0.29	15.54	16.08	0.04	0.98	0.02
STD.DEV.	3.26	3.09	2.89	0.46	3.3	2.45	0.2	0.03	0.03
(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 K-J-	% Preimplant Loss K-J-	% Postimplant Loss K-J-	Total Malformations K-J-	Total Variations A-L-Q	Total Affected A-L-
0 MG/M^3									
MEAN	80.376320	9.624000	7.326	0.0	3.0	2.0	0.1	1.4	0.4
STD.DEV.	3.947106	3.947128	0.905	0.0	3.9	3.4	0.3	1.2	0.6
(N)	25	25	25	25	25	25	25	25	25
2000 MG/M^3									
MEAN	79.858682	10.141864	7.205	0.0	2.4	2.6	0.1	1.0	0.5
STD.DEV.	4.777081	4.77709	0.267	0.0	4.4	4.3	0.2	1.1	0.8
(N)	22	22	22	22	22	22	22	22	22
10,000 MG/M^3									
MEAN	79.224792	10.775667	7.453	0.0	6.6	3.0	0.2	2.0	0.6
STD.DEV.	4.740056	4.740035	0.712	0.0	11.0	4.4	0.4	1.4	0.7
(N)	24	24	24	24	24	24	24	24	24
20,000 MG/M^3									
MEAN	79.835208	9.861292	8.047	0.0	4.6	2.1	0.2	1.0	0.5
STD.DEV.	4.140874	4.077822	3.103	0.0	15.8	3.0	0.5	1.0	0.8
(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
IGK736F	18	8	10	0	18	19	0	1	1
IGK775F	14	8	6	0	14	14	0	0	1
IGK747F	16	7	9	0	16	16	0	0	0
IGK772F	16	9	7	1	17	17	0	0	3
IGK748F	15	6	9	2	17	18	0	0	2
IGK753F	17	10	7	0	17	17	0	0	0
IGK765F	17	9	8	0	17	17	0	0	0
IGK776F	17	6	11	0	17	18	0	0	3
IGK799F	19	13	6	0	19	19	0	0	3
IGK738F	15	11	4	0	15	15	0	0	0
IGK795F	15	4	11	0	15	15	0	0	2
IGK758F	20	9	11	0	20	20	0	0	2
IGK763F	14	9	5	0	14	16	0	0	2
IGK777F	17	9	8	0	17	18	0	0	1
IGK809F	13	8	5	1	14	16	0	1	0
IGK825F	16	7	9	1	17	17	0	0	0
IGK829F	14	8	6	1	15	15	0	0	2
IGK804F	15	5	10	1	16	16	0	0	3
IGK817F	20	13	7	0	20	21	0	0	2
IGK823F	14	7	7	1	15	16	0	0	0
IGK848F	16	4	12	0	16	17	0	0	2
IGK836F	7	4	3	0	7	7	0	0	0
IGK805F	20	12	8	0	20	21	0	0	0
IGK830F	11	4	7	0	11	11	0	0	0
IGK853F	13	8	5	0	13	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
IGK736F	83.232	6.768	6.7681
IGK775F	82.321	7.679	7.6795
IGK747F	82.820	7.181	7.1808
IGK772F	75.964	14.036	6.9653
IGK748F	69.941	20.06	6.9653
IGK753F	83.035	6.965	6.9653
IGK765F	83.035	6.965	6.9653
IGK776F	83.035	6.965	6.9653
IGK799F	83.414	6.587	6.5868
IGK738F	82.583	7.418	7.4176
IGK795F	82.583	7.418	7.4176
IGK758F	83.581	6.419	6.4193
IGK763F	82.321	7.679	7.6795
IGK777F	83.035	6.965	6.9653
IGK809F	74.499	15.501	7.6795
IGK825F	75.964	14.036	6.9653
IGK829F	75.037	14.963	7.4176
IGK804F	75.523	14.478	7.1808
IGK817F	83.581	6.419	6.4193
IGK823F	75.037	14.963	7.4176
IGK848F	82.820	7.181	7.1808
IGK836F	79.107	10.893	10.8935
IGK805F	83.581	6.419	6.4193
IGK830F	81.330	8.671	8.6708
IGK853F	82.029	7.971	7.9712

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
IGK754F	15	9	6	0	15	15	0	0	1
IGK755F	15	4	11	0	15	15	0	0	0
IGK770F	15	8	7	0	15	15	0	0	1
IGK737F	13	9	4	2	15	15	0	0	1
IGK785F NP									
IGK774F	17	12	5	0	17	17	0	0	0
IGK740F	17	10	7	0	17	20	0	0	0
IGK759F	15	7	8	0	15	17	0	0	0
IGK778F	17	8	9	0	17	17	0	0	1
IGK766F	13	5	8	1	14	15	0	0	0
IGK780F	16	3	13	0	16	16	0	0	1
IGK741F D									
IGK807F	18	7	11	0	18	18	0	0	4
IGK819F	13	9	4	1	14	15	0	0	3
IGK837F	14	7	7	2	16	17	0	1	3
IGK838F NP									
IGK784F	17	8	9	0	17	17	0	0	1
IGK789F	18	10	8	0	18	18	0	0	0
IGK782F	15	5	10	0	15	15	0	0	0
IGK843F	16	9	7	0	16	16	0	0	1
IGK811F	16	10	6	0	16	17	0	0	0
IGK845F	16	8	8	1	17	17	0	0	0
IGK862F	16	7	9	1	17	17	0	0	1
IGK864F	15	7	8	0	15	15	0	0	2
IGK827F	15	9	6	1	16	16	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: 2000 MG/M^3

ANIMAL NUMBER	F/I Tran	R/I Tran	D/I Tran
IGK754F	82.583	7.418	7.4176
IGK755F	82.583	7.418	7.4176
IGK770F	82.583	7.418	7.4176
IGK737F	68.584	21.417	7.4176
IGK785F NP			
IGK774F	83.035	6.965	6.9653
IGK740F	83.035	6.965	6.9653
IGK759F	82.583	7.418	7.4176
IGK778F	83.035	6.965	6.9653
IGK766F	74.499	15.501	7.6795
IGK780F	82.82	7.181	7.1808
IGK741F D			
IGK807F	83.232	6.768	6.7681
IGK819F	74.499	15.501	7.6795
IGK837F	69.296	20.705	7.1808
IGK838F NP			
IGK784F	83.035	6.965	6.9653
IGK789F	83.232	6.768	6.7681
IGK782F	82.583	7.418	7.4176
IGK843F	82.82	7.181	7.1808
IGK811F	82.82	7.181	7.1808
IGK845F	75.964	14.036	6.9653
IGK862F	75.964	14.036	6.9653
IGK864F	82.583	7.418	7.4176
IGK827F	75.523	14.478	7.1808

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
IGK731F	14	6	8	1	15	15	0	0	2
IGK732F	16	6	10	0	16	17	0	0	3
IGK792F NP									
IGK742F	18	8	10	0	18	18	0	0	2
IGK749F	14	9	5	1	15	15	0	0	0
IGK756F	11	7	4	0	11	15	0	0	2
IGK762F	16	12	4	0	16	17	0	0	5
IGK769F	16	6	10	0	16	16	0	0	1
IGK773F	18	6	12	1	19	21	0	1	1
IGK790F	12	9	3	0	12	12	0	0	2
IGK814F	14	5	9	0	14	14	0	0	2
IGK800F	12	3	9	2	14	18	0	0	1
IGK796F	13	7	6	0	13	13	0	1	2
IGK828F	10	3	7	0	10	17	0	0	1
IGK812F	17	10	7	1	18	18	0	0	1
IGK831F	16	7	9	0	16	16	0	1	3
IGK842F	16	9	7	0	16	16	0	0	5
IGK813F	16	8	8	0	16	16	0	0	0
IGK847F	17	6	11	1	18	18	0	0	1
IGK835F	17	11	6	0	17	18	0	0	4
IGK787F	14	8	6	2	16	17	0	0	2
IGK803F	17	6	11	1	18	18	0	0	2
IGK806F	14	10	4	0	14	16	0	0	1
IGK810F	17	11	6	0	17	17	0	1	0
IGK852F	9	6	3	1	10	13	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: 10,000 MG/M^3

ANIMAL NUMBER	F/I Tran	R/I Tran	D/I Tran
IGK731F	75.037	14.963	7.4176
IGK732F	82.82	7.181	7.1808
IGK792F NP			
IGK742F	83.232	6.768	6.7681
IGK749F	75.037	14.963	7.4176
IGK756F	81.33	8.671	8.6708
IGK762F	82.82	7.181	7.1808
IGK769F	82.82	7.181	7.1808
IGK773F	76.738	13.263	6.5868
IGK790F	81.702	8.299	8.299
IGK814F	82.321	7.679	7.6795
IGK800F	67.793	22.208	7.6795
IGK796F	82.029	7.971	7.9712
IGK828F	80.903	9.097	9.0975
IGK812F	76.367	13.633	6.7681
IGK831F	82.82	7.181	7.1808
IGK842F	82.82	7.181	7.1808
IGK813F	82.82	7.181	7.1808
IGK847F	76.367	13.633	6.7681
IGK835F	83.035	6.965	6.9653
IGK787F	69.296	20.705	7.1808
IGK803F	76.367	13.633	6.7681
IGK806F	82.321	7.679	7.6795
IGK810F	83.035	6.965	6.9653
IGK852F	71.565	18.435	9.0975

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
IGK733F	15	9	6	1	16	16	0	0	0
IGK781F	13	6	7	1	14	14	0	0	0
IGK743F	16	13	3	0	16	16	0	0	1
IGK783F	16	9	7	1	17	18	0	1	0
IGK735F	16	7	9	0	16	16	0	0	2
IGK797F	2	1	1	0	2	9	0	0	0
IGK764F	17	12	5	0	17	17	0	0	2
IGK771F	13	4	9	1	14	14	0	0	0
IGK791F	12	4	8	0	12	12	0	0	2
IGK751F	18	6	12	1	19	20	0	0	1
IGK761F	19	7	12	0	19	21	0	0	2
IGK768F	15	9	6	0	15	15	0	0	1
IGK801F	16	7	9	0	16	16	0	0	1
IGK757F	16	5	11	1	17	18	0	2	1
IGK808F	17	9	8	0	17	17	0	0	0
IGK826F	16	10	6	1	17	17	0	0	4
IGK832F	16	10	6	0	16	16	0	0	0
IGK834F	17	9	8	0	17	17	0	0	1
IGK846F NP									
IGK798F	16	4	12	0	16	16	0	0	0
IGK818F	17	13	4	0	17	17	0	0	1
IGK850F	14	4	10	0	14	14	0	0	1
IGK802F	18	8	10	0	18	18	0	0	2
IGK821F	15	5	10	0	16	17	1	0	0
IGK849F	15	5	10	0	15	15	0	1	2

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
IGK733F	75.523	14.478	7.1808
IGK781F	74.499	15.501	7.6795
IGK743F	82.82	7.181	7.1808
IGK783F	75.964	14.036	6.9653
IGK735F	82.82	7.181	7.1808
IGK797F	69.296	20.705	20.7049
IGK764F	83.035	6.965	6.9653
IGK771F	74.499	15.501	7.6795
IGK791F	81.702	8.299	8.299
IGK751F	76.738	13.263	6.5868
IGK761F	83.414	6.587	6.5868
IGK768F	82.583	7.418	7.4176
IGK801F	82.82	7.181	7.1808
IGK757F	75.964	14.036	6.9653
IGK808F	83.035	6.965	6.9653
IGK826F	75.964	14.036	6.9653
IGK832F	82.82	7.181	7.1808
IGK834F	83.035	6.965	6.9653
IGK846F NP			
IGK798F	82.82	7.181	7.1808
IGK818F	83.035	6.965	6.9653
IGK850F	82.321	7.679	7.6795
IGK802F	83.232	6.768	6.7681
IGK821F	75.523	7.181	14.4776
IGK849F	82.583	7.418	7.4176

NOTE: NP - ANIMAL NOT PREGNANT D - ANIMAL DELIVERED

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

	MALES	FEMALES
0 MG/M^3		
MEAN	5.59	5.36
STD. DEV.	0.36	0.32
(N)	25	25
2000 MG/M^3		
MEAN	5.58	5.28
STD. DEV.	0.38	0.39
(N)	22	22
10,000 MG/M^3		
MEAN	5.45	5.20
STD. DEV.	0.39	0.35
(N)	24	24
20,000 MG/M^3		
MEAN	5.51	5.21
STD. DEV.	0.43	0.41
(N)	24	24

Mean Fetal Weight and the 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	389	5.48	5.48
2,000	22	341	5.43	5.43
10,000	24	354	5.32	5.31
20,000	24	365	5.35	5.37

*The least squares mean accounts for litter size.

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

ANIMAL NUMBER	SEX														Litter Weights
IGK736F	M	5.26	5.29	5.40	5.86	5.77	5.33	5.62	5.63						97.80
IGK736F	F	5.31	5.40	5.13	5.29	5.28	4.87	5.83	5.98	5.35	5.20				
IGK775F	M	5.85	5.72	5.57	5.81	5.96	5.11	5.24	5.57						76.56
IGK775F	F	5.09	5.33	5.29	5.01	5.72	5.29								
IGK747F	M	5.23	5.70	5.79	5.64	5.99	5.94	5.65							88.38
IGK747F	F	5.23	5.54	5.43	4.90	5.46	5.47	5.44	5.58	5.39					
IGK772F	M	5.48	5.56	5.58	5.58	6.49	5.33	5.50	5.34	5.60					88.38
IGK772F	F	5.81	5.63	5.46	5.23	5.23	5.05	5.51							
IGK748F	M	5.90	5.54	5.70	5.39	5.71	5.42								80.43
IGK748F	F	5.15	5.41	5.84	5.34	5.62	3.86	5.43	4.75	5.37					
IGK753F	M	5.41	5.42	5.44	5.50	5.35	5.51	5.68	5.32	4.95	5.45				90.13
IGK753F	F	5.26	5.19	4.85	5.23	4.99	5.34	5.24							
IGK765F	M	5.69	6.09	5.84	5.97	5.94	5.78	5.91	6.18	6.20					98.90
IGK765F	F	5.58	6.10	5.15	5.88	5.73	5.50	5.84	5.52						
IGK776F	M	5.74	5.64	5.73	6.33	5.48	5.82								94.50
IGK776F	F	5.42	5.39	5.22	5.62	5.68	5.54	5.40	5.60	5.25	5.37	5.27			
IGK799F	M	5.64	5.84	5.64	5.24	5.35	5.64	5.54	5.92	5.81	5.36	5.93	5.95	5.71	106.26
IGK799F	F	5.15	4.93	5.34	5.65	5.94	5.68								
IGK738F	M	5.91	6.17	6.18	6.15	5.52	5.79	6.06	5.98	5.95	5.77	5.88			87.89
IGK738F	F	5.77	5.44	5.58	5.74										
IGK795F	M	5.50	5.75	6.36	5.90										81.33
IGK795F	F	5.06	5.38	4.71	5.29	5.23	5.34	5.27	5.44	5.39	5.32	5.39			
IGK758F	M	5.44	5.34	5.48	5.17	6.13	5.64	5.37	5.77	5.52					106.04
IGK758F	F	4.91	5.05	5.10	4.94	5.12	5.38	5.14	5.12	4.91	4.96	5.55			
IGK763F	M	6.01	6.19	5.45	5.98	5.93	6.10	5.92	5.38	5.34					80.43
IGK763F	F	5.78	5.69	5.70	5.29	5.67									
IGK777F	M	5.49	6.06	5.64	5.98	5.26	5.39	5.23	5.09	5.07					90.54
IGK777F	F	5.23	5.54	5.15	5.00	4.96	5.12	5.08	5.25						
IGK809F	M	5.37	5.22	4.29	4.72	5.41	4.89	4.83	4.46						64.62
IGK809F	F	5.46	5.22	4.90	4.81	5.04									

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

ANIMAL NUMBER	SEX		Litter Weights
IGK825F	M	5.52 5.92 5.98 5.96 5.85 6.02 5.83	91.04
IGK825F	F	5.62 5.85 5.36 5.40 5.62 5.36 5.15 5.78 5.82	
IGK829F	M	5.79 5.85 5.55 5.83 5.84 5.82 5.90 5.86	79.24
IGK829F	F	5.44 5.44 5.61 5.23 5.62 5.46	
IGK804F	M	6.23 6.00 5.35 5.74 5.47	85.38
IGK804F	F	5.43 5.88 5.57 6.01 5.35 5.58 5.77 5.44 5.74 5.82	
IGK817F	M	5.11 5.44 5.58 5.01 5.46 5.17 5.52 5.80 5.55 5.25 5.22 4.81 4.89	104.31
IGK817F	F	5.35 5.51 4.36 4.99 5.35 5.14 4.80	
IGK823F	M	5.03 5.51 5.09 5.12 4.93 5.16 4.92	70.60
IGK823F	F	5.20 4.79 4.76 5.11 4.95 5.21 4.82	
IGK848F	M	5.74 5.79 5.93 6.05	89.83
IGK848F	F	5.07 5.65 5.17 5.48 5.69 5.79 5.89 5.56 5.80 5.59 5.36 5.27	
IGK836F	M	5.03 5.60 5.75 5.24	37.03
IGK836F	F	5.44 5.04 4.93	
IGK805F	M	5.05 5.67 5.20 5.51 5.59 5.44 5.41 5.07 5.48 5.59 5.62 5.43	106.79
IGK805F	F	4.87 5.25 5.54 4.80 5.29 5.25 5.25 5.48	
IGK830F	M	6.20 5.79 5.89 5.77	63.56
IGK830F	F	5.82 6.04 5.62 5.85 5.31 5.64 5.63	
IGK853F	M	5.56 5.61 5.67 5.58 5.86 5.44 5.44 5.29	71.10
IGK853F	F	5.27 5.25 5.40 5.46 5.27	
		Mean	85.24
		S.D.	15.91

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

ANIMAL NUMBER	SEX													Litter Weights
IGK754F	M	5.26	5.41	5.52	5.51	5.43	5.67	5.64	5.79	5.41				81.31
IGK754F	F	5.15	5.19	5.25	5.51	5.17	5.40							
IGK755F	M	5.55	5.45	6.07	5.54									82.87
IGK755F	F	5.77	5.61	5.38	5.85	5.59	5.41	5.25	5.32	5.13	5.67	5.28		
IGK770F	M	5.75	5.72	5.90	6.18	6.17	5.99	6.07	6.31					86.87
IGK770F	F	5.33	5.71	5.77	5.52	5.28	5.22	5.95						
IGK737F	M	5.50	5.34	5.30	5.35	4.91	5.58	5.24	5.51	5.35				69.80
IGK737F	F	6.29	5.00	5.23	5.20									
IGK785F	NP													
IGK774F	M	5.28	5.38	5.58	5.54	5.69	5.99	5.53	5.36	5.95	5.84	6.04	5.76	95.57
IGK774F	F	5.38	5.52	5.55	5.47	5.71								
IGK740F	M	4.81	5.28	5.66	4.91	5.42	6.21	5.70	5.60	6.49	5.84			90.59
IGK740F	F	4.47	4.95	4.78	5.41	4.84	5.02	5.20						
IGK759F	M	5.46	5.21	5.32	5.20	4.33	5.20	4.96						71.72
IGK759F	F	4.96	4.27	5.12	3.80	4.18	4.76	4.63	4.32					
IGK778F	M	4.86	5.40	5.35	5.55	5.80	5.54	5.69	5.04					90.30
IGK778F	F	5.13	5.26	5.38	5.23	5.07	5.22	5.30	5.24	5.24				
IGK766F	M	5.13	5.28	5.46	5.47	5.33								67.35
IGK766F	F	5.03	5.23	5.25	5.44	4.81	4.90	4.96	5.06					
IGK780F	M	5.80	5.94	5.62										84.46
IGK780F	F	4.74	4.98	5.37	5.12	5.43	5.62	5.70	4.95	5.20	4.87	5.20	4.95	4.97
IGK741F	D													
IGK807F	M	4.84	5.41	5.71	4.83	5.17	5.13	5.56						90.29
IGK807F	F	5.12	5.27	5.04	4.67	4.73	4.61	4.86	4.96	4.63	5.07	4.68		
IGK819F	M	5.55	5.73	5.46	5.34	5.37	5.33	5.68	5.27	5.40				70.49
IGK819F	F	5.37	5.24	5.38	5.37									
IGK837F	M	6.24	6.00	6.17	6.17	6.04	6.34							77.42
IGK837F	F	5.71	5.89	5.76	5.69	5.49	6.14	5.78						

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

ANIMAL NUMBER	SEX										Litter Weights
IGK838F	NP										
IGK784F	M	6.23	5.64	5.72	5.84	5.64	5.67	5.74	6.10		97.01
IGK784F	F	5.80	5.21	5.78	5.50	5.87	5.36	5.95	5.42	5.54	
IGK789F	M	5.86	5.73	5.53	5.73	5.69	5.89	5.42	5.96	6.17 6.06	100.64
IGK789F	F	4.28	5.42	5.45	5.38	5.42	5.60	5.34	5.71		
IGK782F	M	5.69	5.24	5.05	5.53	5.47					79.65
IGK782F	F	4.84	5.23	5.32	5.57	5.29	5.48	5.09	5.12	5.26 5.47	
IGK843F	M	5.05	5.23	4.97	5.18	5.36	5.25	5.50	5.44	5.39	82.39
IGK843F	F	4.91	4.88	5.28	4.89	4.91	5.23	4.92			
IGK811F	M	4.95	5.07	4.89	5.26	5.17	5.66	5.30	5.49	5.57 5.60	83.18
IGK811F	F	4.94	4.98	5.06	4.99	4.99	5.26				
IGK845F	M	5.67	5.51	5.47	5.44	5.62	5.47	5.76	5.67		87.88
IGK845F	F	5.24	5.18	5.34	5.37	5.56	5.76	5.61	5.21		
IGK862F	M	5.99	6.02	5.84	5.95	5.85	6.28	5.94			91.19
IGK862F	F	5.27	5.50	5.32	5.55	5.41	6.02	5.50	5.17	5.58	
IGK864F	M	5.48	5.94	6.18	6.00	6.53	6.51	6.33			88.08
IGK864F	F	5.43	5.72	5.85	5.97	5.27	4.71	6.21	5.95		
IGK827F	M	5.59	5.15	5.69	5.68	5.65	5.47	5.37	5.71	5.54	82.51
IGK827F	F	5.29	5.50	5.61	5.68	5.36	5.22				
										Mean	84.16
										S.D.	8.95

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

ANIMAL NUMBER	SEX		Litter Weights
IGK731F	M	5.66 5.91 5.50 5.38 5.52 5.46	76.37
IGK731F	F	5.22 5.54 5.45 5.14 5.29 5.25 5.49 5.56	
IGK732F	M	5.95 5.67 5.58 5.80 5.85 5.66	89.56
IGK732F	F	5.27 5.59 5.45 5.29 5.68 6.20 5.14 5.47 5.73 5.23	
IGK792F	NP		
IGK742F	M	5.08 5.30 3.87 5.38 5.90 5.58 5.50 5.79	94.68
IGK742F	F	5.00 5.43 5.34 5.23 4.95 5.13 5.32 5.65 5.29 4.94	
IGK749F	M	5.56 5.31 5.43 5.70 5.01 5.28 5.53 5.54 4.83	74.20
IGK749F	F	4.92 5.43 5.51 5.40 4.75	
IGK756F	M	6.30 6.15 6.20 6.32 5.82 6.17 5.41	64.65
IGK756F	F	5.42 5.37 5.80 5.69	
IGK762F	M	5.20 5.42 5.32 5.99 5.27 5.25 5.65 5.46 5.66 5.33 5.06 5.00	85.19
IGK762F	F	5.19 5.29 5.05 5.05	
IGK769F	M	5.07 5.35 5.24 5.36 4.83 5.49	82.11
IGK769F	F	5.51 5.17 5.12 4.85 4.75 5.28 5.40 4.98 4.85 4.86	
IGK773F	M	5.29 5.22 5.41 5.47 5.24 5.14	91.53
IGK773F	F	4.72 5.04 4.91 4.93 4.88 5.09 5.09 4.95 5.16 4.87 5.11 5.01	
IGK790F	M	6.08 6.22 6.01 6.06 5.91 5.74 5.28 5.67 5.40	68.61
IGK790F	F	5.09 5.98 5.17	
IGK814F	M	4.93 5.41 5.58 5.38 5.16	71.72
IGK814F	F	5.00 5.39 4.94 5.19 5.10 4.97 4.97 5.10 4.60	
IGK800F	M	5.63 6.00 5.87	65.54
IGK800F	F	5.36 5.06 5.28 5.41 5.28 5.42 5.44 5.38 5.41	
IGK796F	M	5.14 5.67 5.87 5.60 5.88 5.31 5.28	71.95
IGK796F	F	5.29 5.70 5.88 5.11 5.51 5.71	
IGK828F	M	5.17 5.12 5.11	49.56
IGK828F	F	4.93 5.01 4.76 5.04 4.95 3.87 5.60	
IGK812F	M	5.14 4.59 5.14 5.45 4.98 5.27 5.56 5.54 5.30 5.67	88.02
IGK812F	F	5.13 4.54 5.07 4.86 4.99 5.57 5.22	

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

ANIMAL NUMBER	SEX		Litter Weights
IGK831F	M	5.48 5.55 4.92 5.34 5.29 5.17 5.78	83.11
IGK831F	F	5.18 5.03 5.16 5.03 5.04 5.24 5.10 5.02 4.78	
IGK842F	M	5.47 5.42 5.74 6.10 5.81 5.62 5.50 5.76 5.49	89.23
IGK842F	F	5.37 5.05 5.36 5.85 5.47 5.67 5.55	
IGK813F	M	5.74 4.98 4.72 5.35 4.88 5.34 4.61 5.03	79.79
IGK813F	F	5.32 5.04 4.92 4.73 4.62 4.81 5.03 4.67	
IGK847F	M	5.75 5.82 5.90 5.31 5.83 5.73	94.62
IGK847F	F	5.48 5.60 5.27 5.32 5.95 5.52 5.32 5.82 5.15 5.56 5.29	
IGK835F	M	4.98 5.45 5.32 5.39 5.88 5.43 5.18 4.95 5.24 5.33 5.30	87.55
IGK835F	F	4.61 4.85 5.09 4.54 4.94 5.07	
IGK787F	M	5.17 5.59 6.07 5.98 5.86 5.56 5.64 6.02	79.61
IGK787F	F	5.63 5.32 5.53 5.66 5.48 6.10	
IGK803F	M	5.21 5.43 5.57 5.44 5.51 5.37	88.24
IGK803F	F	5.36 5.28 5.19 5.06 4.89 4.79 4.79 5.16 5.18 5.04 4.97	
IGK806F	M	6.42 5.78 5.93 5.68 5.66 5.43 5.00 5.35 5.67 5.55	77.70
IGK806F	F	5.60 5.32 5.26 5.05	
IGK810F	M	4.59 4.92 5.16 5.11 5.06 4.56 4.68 4.82 4.85 4.79 4.71	80.87
IGK810F	F	4.52 4.59 4.66 4.79 4.85 4.21	
IGK852F	M	5.27 5.56 5.72 5.50 5.74 5.15	49.56
IGK852F	F	5.71 5.44 5.47	
		Mean	78.50
		S.D.	12.39

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

ANIMAL NUMBER	SEX														Litter Weights
IGK733F	M	5.14	5.73	5.84	6.03	5.96	5.31	6.10	5.77	5.77					83.63
IGK733F	F	5.34	5.33	5.11	5.66	5.23	5.31								
IGK781F	M	6.42	6.35	5.96	6.02	5.91	6.41								77.28
IGK781F	F	5.97	5.53	5.67	5.59	5.79	5.94	5.72							
IGK743F	M	5.50	5.77	5.73	5.42	5.57	5.50	5.67	6.11	5.76	5.56	5.18	5.30	5.25	87.82
IGK743F	F	5.25	5.05	5.20											
IGK783F	M	5.29	5.61	5.44	5.66	5.82	5.15	5.75	5.66	5.47					87.41
IGK783F	F	4.95	5.50	5.44	5.46	5.31	5.34	5.56							
IGK735F	M	5.44	4.97	5.60	5.89	5.66	5.45	4.96							84.94
IGK735F	F	5.39	5.02	5.33	5.21	5.80	5.11	4.99	5.08	5.04					
IGK797F	M	5.68													11.89
IGK797F	F	6.21													
IGK764F	M	5.02	5.12	5.19	5.48	5.00	5.13	5.35	4.20	5.65	5.53	5.29	5.23		86.71
IGK764F	F	4.84	4.83	4.80	5.07	4.98									
IGK771F	M	4.88	5.12	5.37	5.64										67.16
IGK771F	F	5.73	4.97	4.99	5.16	5.14	4.33	5.42	5.36	5.05					
IGK791F	M	6.12	5.86	6.72	6.29										69.16
IGK791F	F	5.31	5.64	5.47	5.59	5.72	5.58	5.18	5.68						
IGK751F	M	5.19	5.13	5.52	5.39	5.38	5.52								91.03
IGK751F	F	4.34	5.01	4.80	4.80	4.75	5.07	5.23	5.36	4.57	5.04	4.92	5.01		
IGK761F	M	5.40	4.77	4.99	5.44	5.37	5.62	5.08							98.85
IGK761F	F	5.15	5.19	4.75	4.87	5.11	5.32	5.74	5.21	5.11	5.11	5.15	5.47		
IGK768F	M	5.79	5.93	5.78	5.78	5.79	5.83	5.31	5.42	5.53					84.04
IGK768F	F	5.21	5.59	5.79	5.51	5.63	5.15								
IGK801F	M	5.20	5.18	5.05	5.21	5.43	5.28	4.82							78.31
IGK801F	F	4.52	3.78	4.47	4.75	5.05	5.16	4.79	4.99	4.63					
IGK757F	M	6.46	6.94	6.91	5.93	6.19									94.73
IGK757F	F	6.27	5.62	5.71	5.85	5.48	5.14	5.81	5.70	5.36	5.92	5.44			
IGK808F	M	5.01	5.29	5.16	5.41	5.22	5.39	5.49	5.25	5.04					83.92
IGK808F	F	4.99	4.49	4.75	4.71	3.82	4.72	4.54	4.64						

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

ANIMAL NUMBER	SEX													Litter Weights
IGK826F	M	5.16	5.41	5.64	5.63	5.64	5.36	5.46	5.88	6.29	5.82			88.97
IGK826F	F	5.75	5.33	4.81	5.72	5.46	5.61							
IGK832F	M	5.48	4.50	5.41	5.31	5.40	5.35	4.92	5.79	5.42	5.77			82.23
IGK832F	F	4.91	4.93	3.93	4.73	5.23	5.15							
IGK834F	M	5.14	5.19	5.21	4.85	5.06	3.82	4.82	4.88	4.89				82.17
IGK834F	F	4.94	4.87	4.69	4.54	4.75	4.83	5.08	4.61					
IGK846F	NP													
IGK798F	M	5.64	5.18	5.45	5.05									83.40
IGK798F	F	5.33	5.17	5.63	5.12	4.83	5.27	5.15	5.27	5.06	5.25	5.08	4.92	
IGK818F	M	5.21	5.14	5.56	5.62	5.61	5.59	5.42	5.41	5.68	5.72	5.88	5.90 5.92	94.07
IGK818F	F	5.34	4.98	5.73	5.36									
IGK850F	M	5.26	5.51	5.16	5.56									71.57
IGK850F	F	4.96	4.83	4.81	5.28	5.05	5.44	5.00	4.81	5.08	4.82			
IGK802F	M	5.46	5.93	5.42	5.24	5.28	5.88	5.74	5.36					97.54
IGK802F	F	5.46	5.16	5.31	4.94	5.30	5.45	5.31	5.45	5.20	5.65			
IGK821F	M	5.79	5.54	6.21	5.83	6.06								85.79
IGK821F	F	5.82	6.08	5.49	5.36	5.66	5.29	5.44	5.86	5.90	5.46			
IGK849F	M	5.28	5.82	5.53	5.68	5.52								80.56
IGK849F	F	4.31	5.38	5.33	5.51	5.38	5.49	5.41	5.30	5.32	5.30			
													Mean	81.38
													S.D.	16.84

NOTE: NP- NOT PREGNANT
D - EARLY DELIVERY

APPENDIX H - FETAL OBSERVATIONS
(INCIDENCE OF FETAL OBSERVATIONS)

TARGET DOSE:	0 MG/M3	2000 MG/M3	10000 MG/M3	20000 MG/M3
TOTAL FETUSES WITH EXTERNAL VARIATIONS	0/389	0/342	0/354	0/365
TOTAL LITTERS WITH EXTERNAL VARIATIONS	[0/25]	[0/22]	[0/24]	[0/24]
TOTAL FETUSES WITH EXTERNAL MALFORMATIONS	1/389	0/342	2/354	1/365
TOTAL LITTERS WITH EXTERNAL MALFORMATIONS	[1/25]	[0/22]	[2/24]	[1/24]
TOTAL FETUSES WITH VISCERAL VARIATIONS	0/195	1/169	0/176	0/181
TOTAL LITTERS WITH VISCERAL VARIATIONS	[0/25]	[1/22]	[0/24]	[0/24]
TOTAL FETUSES WITH VISCERAL MALFORMATIONS	1/195	1/169	2/176	2/181
TOTAL LITTERS WITH VISCERAL MALFORMATIONS	[1/25]	[1/22]	[2/24]	[2/24]
TOTAL FETUSES WITH SKELETAL VARIATIONS	30/194	20/173	44/178	25/184
TOTAL LITTERS WITH SKELETAL VARIATIONS	[15/25]	[12/22]	[21/24]	[15/24]
TOTAL FETUSES WITH SKELETAL MALFORMATIONS	0/194	0/173	0/178	1/184
TOTAL LITTERS WITH SKELETAL MALFORMATIONS	[0/25]	[0/22]	[0/24]	[1/24]
EXTERNAL EXAMINATIONS				
- TOTAL FETUSES EXAMINED:	389	342	354	365
- TOTAL LITTERS EXAMINED:	[25]	[22]	[24]	[24]
INDIVIDUAL EXTERNAL OBSERVATIONS				
STUNTED (<4.0 grams)	1	1	2	4
	[1]	[1]	[2]	[4]
RED MATERIAL AROUND PLACENTA	0	0	0	2
	[0]	[0]	[0]	[1]

NOTE: [] Represents litter - based data

APPENDIX H - FETAL OBSERVATIONS
(INCIDENCE OF FETAL OBSERVATIONS)

TARGET DOSE:	0 MG/M3	2000 MG/M3	10000 MG/M3	20000 MG/M3
INDIVIDUAL EXTERNAL MALFORMATIONS				
MALROTATED HIND PAW	1	0	2	0
	[1]	[0]	[2]	[0]
MISSHAPEN HEAD	0	0	0	1
	[0]	[0]	[0]	[1]
VISCERAL EXAMINATIONS				
- TOTAL FETUSES EXAMINED:	195	169	176	181
- TOTAL LITTERS EXAMINED:	[25]	[22]	[24]	[24]
INDIVIDUAL VISCERAL OBSERVATIONS				
LIVER DISCOLORED	0	0	1	0
	[0]	[0]	[1]	[0]
INDIVIDUAL VISCERAL VARIATIONS				
UMBILICAL ARTERY ARISES FROM LEFT SIDE OF	0	1	0	0
URINARY BLADDER	[0]	[1]	[0]	[0]
HEAD SUBCUTANEOUS RAISED AREA	0	0	1	0
	[0]	[0]	[1]	[0]
ABDOMEN ABNORMAL CONTENTS (RED FLUID)	0	0	1	0
	[0]	[0]	[1]	[0]

NOTE: [] Represents litter - based data

APPENDIX H - FETAL OBSERVATIONS
(INCIDENCE OF FETAL OBSERVATIONS)

TARGET DOSE:	0 MG/M3	2000 MG/M3	10000 MG/M3	20000 MG/M3
INDIVIDUAL VISCERAL MALFORMATIONS				
RENAL ARTERY ANEURYSM	0	1	0	0
	[0]	[1]	[0]	[0]
HYDROURETER	0	0	1	1
	[0]	[0]	[1]	[1]
HYDRONEPHROSIS	0	0	1	2
	[0]	[0]	[1]	[2]
MISSHAPEN OLFACTORY BULB	1	0	0	0
	[1]	[0]	[0]	[0]
SKELETAL EXAMINATIONS				
- TOTAL FETUSES EXAMINED:	194	173	178	184
- TOTAL LITTERS EXAMINED:	[25]	[22]	[24]	[24]
INDIVIDUAL OSSIFICATION VARIATIONS				
STERNEBRAE:				
HYPOPLASTIC	2	0	2	1
	[1]	[0]	[2]	[1]
UNOSSIFIED	0	1	0	1
	[0]	[1]	[0]	[1]
RIBS:				
RUDIMENTARY LUMBAR	8	2	7	4
	[6]	[2]	[6]	[3]

NOTE: [] Represents litter - based data

APPENDIX H - FETAL OBSERVATIONS
(INCIDENCE OF FETAL OBSERVATIONS)

TARGET DOSE:	0 MG/M3	2000 MG/M3	10000 MG/M3	20000 MG/M3
INDIVIDUAL OSSIFICATION VARIATIONS				
RIBS (CONT'D):				
SHORT LAST RIB THORACIC	0	1	0	1
	[0]	[1]	[0]	[1]
VERTEBRAE:				
THORACIC CENTRA BIFID	21	16	33	17
	[12]	[8]	[19]	[11]
THORACIC CENTRA DUMBBELL / 8 SHAPED	1	0	0	0
	[1]	[0]	[0]	[0]
INDIVIDUAL CARTILAGINOUS STRUCTURE VARIATIONS				
THORACIC CENTRA HYPOPLASIA	0	0	1	0
	[0]	[0]	[1]	[0]
THORACIC CENTRA DUMBBELL / 8 SHAPED	3	2	5	5
	[3]	[2]	[5]	[5]

NOTE: [] Represents litter - based data

APPENDIX H - FETAL OBSERVATIONS
(INCIDENCE OF FETAL OBSERVATIONS)

TARGET DOSE:	0 MG/M3	2000 MG/M3	10000 MG/M3	20000 MG/M3
INDIVIDUAL CARTILAGINOUS STRUCTURAL VARIATIONS				
THORACIC CENTRA MISSHAPEN	0	0	1	0
	[0]	[0]	[1]	[0]
THORACIC CENTRA BIFID	0	0	2	0
	[0]	[0]	[1]	[0]
INDIVIDUAL OSSIFICATION MALFORMATIONS				
VERTEBRAE:				
THORACIC CENTRA MALFORMED	0	0	0	1
	[0]	[0]	[0]	[1]
INDIVIDUAL CARTILAGINOUS STRUCTURAL MALFORMATIONS				
VERTEBRAE:				
THORACIC CENTRA MALFORMED	0	0	0	1
	[0]	[0]	[0]	[1]

NOTE: [] Represents litter - based data

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK736F

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

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

NOTE:
(A) - HEAD: Misshapen olfactory bulb
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK775F

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	+			+
5	A	M	+	+	+	
6	A	M	+			+
7	A	M	+	+	+	
8C	A	M	+			+
9	A	M	+	+	+	
10	A	F	+			+
11	A	M	+	+	+	
12	A	F	+			(a)
13	A	M	+	+	+	
14	A	F	+			+

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

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Left

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK747F

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	M	+			+
5	A	M	+	+	+	
6	A	F	+			+
7	A	F	+	+	+	
8	A	F	+			+
9	A	F	+	+	+	
10C	A	F	+			+
11	A	M	+	+	+	
12	A	F	+			+
13	A	M	+	+	+	
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

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK772F

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	+			(a)
2	A	F	+	+	+	
3	A	F	+			(b)
4	A	F	+	+	+	
E						
5	A	M	+			+
6	A	M	+	+	+	
7	A	F	+			+
8C	A	M	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
11	A	M	+			+
12	A	M	+	+	+	
13	A	M	+			+
14	A	F	+	+	+	
15	A	F	+			(b)
16	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 (T12): Bifid centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK748F

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	+			(a)
4	A	M	+	+	+	
E						
5	A	F	+			(b)
6	A	F	+	+	+	
7	A	F	+			+
8C*	A	F	+	+	+	
9	A	F	+			+
10	A	F	+	+	+	
11	A	M	+			+
12	A	M	+	+	+	
13	A	M	+			+
E						
14	A	M	+	+	+	
15	A	F	+			+

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

NOTE: * - Stunted
(a) - SKELETAL/RIBS (L1): Rudimentary; Right
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK753F

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	M	+	+	+	
8C	A	M	+			+
9	A	M	+	+	+	
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: 0 MG/M3

ANIMAL NUMBER: IGK765F

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	M	+			+
5	A	M	+	+	+	
6	A	M	+			+
7	A	M	+	+	+	
8	A	M	+			+
9	A	M	+	+	+	
10C	A	F	+			+
11	A	F	+	+	+	
12	A	M	+			+
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: 0 MG/M3

ANIMAL NUMBER: IGK776F

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	M	+	+	+	
5	A	F	+			(b)
6	A	F	+	+	+	
7	A	F	+			(c,d)
8	A	F	+	+	+	
9	A	M	+			+
10C	A	F	+	+	+	
11	A	F	+			+
12	A	F	+	+	+	
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

NOTE:
(a) - SKELETAL/VERTEBRAE (T12): Bifid centra
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra
(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: IGK799F

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	M	+			+
3	A	M	+	+	+	
4	A	M	+			+
5	A	M	+	+	+	
6	A	F	+			+
7	A	M	+	+	+	
8	A	M	+			+
9	A	F	+	+	+	
10C	A	M	+			+
11	A	M	+	+	+	
12	A	F	+			(a,c)
13	A	M	+	+	+	
14	A	F	+			(b)
15	A	M	+	+	+	
16	A	F	+			(b,d)
17	A	F	+	+	+	
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; Right
(b) - SKELETAL/RIBS (L1): Rudimentary; Left
(c) - SKELETAL/VERTEBRAE (T9): Dumbbell centra
(d) - SKELETAL/VERTEBRAE (T12): Bifid centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK738F

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	M	+			+
6	A	M	+	+	+	
7	A	F	+			+
8C	A	M	+	+	+	
9	A	M	+			+
10	A	M	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
13	A	F	+			+
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: IGK795F

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	+			(a)
3	A	F	+	+	+	
4	A	F	+			(a,b)
5	A	F	+	+	+	
6	A	F	+			+
7	A	F	+	+	+	
8	A	F	+			+
9	A	F	+	+	+	
10	A	F	+			+
11	A	F	+	+	+	
12C	A	F	+			+
13	A	M	+	+	+	
14	A	F	+			+
15	A	M	+	+	+	

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

NOTE:
(a) - SKELETAL/VERTEBRAE (T12): Bifid centra
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK758F

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	M	+	+	+	
5	A	F	+			+
6	A	F	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
11C	A	M	+			+
12	A	M	+	+	+	
13	A	F	+			+
14	A	M	+	+	+	
15	A	F	+			+
16	A	F	+	+	+	
17	A	M	+			(a)
18	A	F	+	+	+	
19	A	F	+			(a)
20	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 (I): Hypoplastic

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK763F

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	M	+			+
3	A	F	+	+	+	
4	A	M	+			(a)
5C	A	F	+	+	+	
6	A	M	+			+
7	A	F	+	+	+	
8	A	M	+			+
9	A	M	+	+	+	
10	A	M	+			+
11	A	M	+	+	+	
12	A	F	+			(a)
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

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK777F

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	F	+	+	+	
6	A	M	+			+
7C	A	M	+	+	+	
8	A	F	+			+
9	A	M	+	+	+	
10	A	M	+			+
11	A	F	+	+	+	
12	A	M	+			(a,b)
13	A	F	+	+	+	
14	A	M	+			+
15	A	F	+	+	+	
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

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: 0 MG/M3

ANIMAL NUMBER: IGK809F

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	F	+	+	+	
E						
2	A	M	+			+
3	A	F	+	+	+	
4C	A	F	+			+
5	A	M	+	+	+	
6	A	M	+			+
7	A	M	+	+	+	
8	A	F	+			+
9	A	M	+	+	+	
10	A	M	+			+
11	A	F	(A)	+	+	
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) - EXTERNAL: Malrotated hindpaw; Left

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK825F

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	+			+
7	A	F	+	+	+	
8C	A	F	+			+
9	A	F	+	+	+	
10	A	M	+			+
11	A	F	+	+	+	
12	A	M	+			+
13	A	F	+	+	+	
E						
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: 0 MG/M3

ANIMAL NUMBER: IGK829F

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	M	+			+
3	A	M	+	+	+	
4	A	F	+			(a)
5	A	M	+	+	+	
6	A	F	+			+
7	A	M	+			+
8	A	F	+	+	+	
9C	A	M	+			+
10	A	F	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
E						
13	A	M	+			(a)
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

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK804F

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	F	+			+
6	A	M	+	+	+	
7	A	F	+			(a)
8	A	F	+	+	+	
9C	A	F	+			(c)
10	A	F	+	+	+	
11	A	M	+			+
E						
12	A	F	+	+	+	
13	A	F	+			(b,c)
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; Left
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra
(c) - SKELETAL/VERTEBRAE (T12): Bifid centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK817F

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	+			(a,b,c)
5	A	M	+	+	+	
6	A	M	+			+
7	A	M	+	+	+	
8	A	F	+			(a)
9C	A	M	+	+	+	
10	A	F	+			+
11	A	M	+	+	+	
12	A	F	+			+
13	A	F	+	+	+	
14	A	F	+			+
15	A	F	+	+	+	
16	A	M	+			+
17	A	M	+	+	+	
18	A	M	+			+
19	A	M	+	+	+	
20	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 (T12): Bifid centra
(c) - SKELETAL/VERTEBRAE (T11 ANLAGE): Dumbbell shaped centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK823F

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	M	+			+
5	A	F	+	+	+	
6	A	F	+			+
7	A	F	+	+	+	
8C	A	F	+			+
9	A	F	+	+	+	
10	A	M	+			+
11	A	M	+	+	+	
12	A	M	+			+
13	A	M	+	+	+	
14	A	F	+			+

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

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK848F

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	M	+	+	+	
3	A	M	+			(b)
4	A	F	+	+	+	
5	A	M	+			+
6	A	F	+	+	+	
7	A	F	+			+
8	A	F	+	+	+	
9C	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			(a)
12	A	F	+	+	+	
13	A	F	+			+
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: Fetus numbers 3, 9, and 15 found with identification tags detached, numbers arbitrarily assigned for skeletal exams
(a) - SKELETAL/RIBS (L1): Rudimentary; Left
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK836F

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	+			+
4C	A	M	+	+	+	
5	A	M	+			+
6	A	F	+	+	+	
7	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: IGK805F

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	M	+			+
7	A	F	+	+	+	
8	A	M	+			+
9	A	M	+	+	+	
10	A	F	+			+
11C	A	M	+	+	+	
12	A	F	+			+
13	A	M	+	+	+	
14	A	F	+			+
15	A	M	+	+	+	
16	A	M	+			+
17	A	F	+	+	+	
18	A	M	+			+
19	A	F	+	+	+	
20	A	M	+			+

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

NOTE: Fetus numbers 6 and 10 found with identification tags detached, numbers arbitrarily assigned for skeletal exams

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK830F

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

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

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

TARGET DOSE: 0 MG/M3

ANIMAL NUMBER: IGK853F

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	+			(a)
3	A	F	+	+	+	
4	A	M	+			+
5	A	F	+	+	+	
6	A	M	+			+
7	A	F	+	+	+	
8C	A	M	+			+
9	A	F	+	+	+	
10	A	F	+			+
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: Fetus numbers 2 and 8 found with identification tags detached, numbers
arbitrarily assigned for skeletal exams
(a) - SKELETAL/RIBS (L1): Rudimentary; Right

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK754F

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	M	+			+
4	A	M	+	+	+	
5	A	F	+			+
6	A	M	+	+	+	
7C	A	F	+			(a)
8	A	M	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
13	A	F	+			+
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: 2000 MG/M3

ANIMAL NUMBER: IGK755F

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	M	+			+
5	A	F	+	+	+	
6C	A	F	+			+
7	A	F	+	+	+	
8	A	F	+			+
9	A	F	+	+	+	
10	A	M	+			+
11	A	M	+	+	+	
12	A	F	+			+
13	A	M	+	+	+	
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

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK770F

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	M	+	+	+	
7	A	M	+			+
8	A	F	+	+	+	
9	A	F	+			+
10	A	F	+	+	+	
11	A	F	+			+
12C	A	F	+	+	+	
13	A	M	+			(a)
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/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK737F

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	+	+	+	
4C	A	M	+			(a)
5	A	F	+	+	+	
6	A	F	+			+
7	A	M	+	+	+	
8	A	F	+			+
E						
9	A	M	+	+	+	
10	A	M	+			+
11	A	M	+	+	+	
12	A	M	+			+
E						
13	A	F	+	+	+	

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

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Left

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK774F

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	M	+			+
6	A	M	+	+	+	
7	A	F	+			+
8C	A	M	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
13	A	M	+			+
14	A	M	+	+	+	
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: 2000 MG/M3

ANIMAL NUMBER: IGK740F

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	F	+	+	+	
5	A	M	+			+
6	A	F	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
11	A	M	+			+
12	A	M	+	+	+	
13C	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: 2000 MG/M3

ANIMAL NUMBER: IGK759F

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	F	+	+	+	
6*	A	F	+			+
7	A	M	+	+	+	
8C	A	M	+			+
9	A	F	+	+	+	
10	A	M	+			+
11	A	F	+	+	+	
12	A	F	+			+
13	A	F	+	+	+	
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:Fetus numbers 12 and 14 found with identification tags detached, numbers
arbitrarily assigned for skeletal exams
* - Stunted

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK778F

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

NOTE:
(a) - SKELETAL/VERTEBRAE (T12): Bifid centra

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK766F

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	M	+			+
E						
6	A	F	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9C	A	M	+			+
10	A	F	+	+	+	
11	A	M	+			+
12	A	M	+	+	+	
13	A	F	+			+

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

NOTE: Fetus numbers 5 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: IGK780F

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	+			(a)
2	A	M	+	+	+	
3	A	F	+			+
4	A	F	+	+	+	
5	A	F	+			+
6	A	M	+	+	+	
7C	A	F	+			+
8	A	F	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			+
12	A	F	+	+	+	
13	A	F	+			+
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/STERNEBRAE (V): Unossified

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK741F

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	M				
8	A	M				
9	A	F				
10	A	M				
11	A	F				
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: 17 Pups delivered prior to C-section.

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK807F

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	+			(a)
3	A	F	+	+	+	
4	A	M	+			+
5	A	F	+	+	+	
6C	A	M	+			(b)
7	A	M	+	+	+	
8	A	F	+			+
9	A	M	+	+	+	
10	A	M	+			(d)
11	A	F	+	+	+	
12	A	F	+			+
13	A	F	+	+	+	
14	A	M	+			+
15	A	F	+	+	+	
16	A	F	+			+
17	A	M	+	+	+	
18	A	F	+			(c,e)

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 (T13): Bifid centra
(c) - SKELETAL/VERTEBRAE (T8): Bifid centra
(d) - SKELETAL/VERTEBRAE (T12): Bifid centra
(e) - SKELETAL/VERTEBRAE (T8 Anlage): Dumbbell shaped

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK819F

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	M	+			+
3	A	F	+	+	+	
4	A	M	+			(a)
5	A	F	+	+	+	
6C	A	M	+			+
E						
7	A	M	+	+	+	
8	A	M	+			(b)
9	A	F	+	+	+	
10	A	M	+			(b)
11	A	F	+	+	+	
12	A	M	+			+
13	A	M	+	+	+	

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

NOTE:
(a) - SKELETAL/VERTEBRAE (T12): Bifid centra
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK837F

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	M	+	+	+	
2	A	F	+			+
3	A	F	+	+	+	
E						
4	A	M	+			(b)
5	A	F	+	+	+	
6C	A	F	+			+
7	A	M	+	+	+	
8	A	F	+			(c)
9	A	M	+	+	(A)	
10	A	M	+			+
11	A	M	+	+	+	
E						
12	A	F	+			+
13	A	M	+	+	+	
14	A	F	+			(c,d,e)

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

NOTE:
(A) - ABDOMEN/THORAX: Renal artery aneurysm; Left
(b) - SKELETAL/VERTEBRAE (T9-11): Bifid centra
(c) - SKELETAL/VERTEBRAE (T11): Bifid centra
(d) - SKELETAL/VERTEBRAE (T10): Bifid centra
(e) - SKELETAL/VERTEBRAE (T10 ANLAGE): Dumbbell shaped

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK784F

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	M	+			+
4	A	F	+	+	+	
5	A	F	+			+
6	A	M	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9	A	M	+			+
10C	A	F	+	+	+	
11	A	F	+			(a)
12	A	M	+	+	+	
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 (T13): Short last rib; Right

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK789F

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	M	+			+
5	A	M	+	+	+	
6	A	M	+			+
7	A	F	+	+	+	
8	A	F	+			+
9	A	M	+	+	+	
10	A	F	+			+
11C	A	F	+	+	+	
12	A	M	+			+
13	A	F	+	+	+	
14	A	F	+			+
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

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK782F

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	M	+	+	+	
7	A	M	+			+
8C	A	F	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			+
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

NOTE: Fetus numbers 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: IGK843F

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	+			(a)
3	A	M	+	+	+	
4	A	M	+			+
5	A	F	+	+	+	
6	A	M	+			+
7	A	F	+	+	+	
8C	A	F	+			+
9	A	M	+	+	+	
10	A	F	+			+
11	A	M	+	+	+	
12	A	F	+			+
13	A	M	+	+	+	
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: Fetus numbers 4 and 14 found with identification tags detached, numbers
arbitrarily assigned for skeletal exams
(a) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK811F

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	F	+			+
5	A	M	+	+	+	
6	A	F	+			+
7	A	M	+	+	+	
8	A	M	+			+
9	A	M	+	+	+	
10C	A	F	+			+
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: IGK845F

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	M	+			+
7	A	M	+	+	+	
8	A	M	+			+
9C	A	F	+	+	+	
10	A	F	+			+
11	A	M	+	+	+	
12	A	F	+			+
13	A	M	+	+	+	
14	A	M	+			+
15	A	F	+	+	+	
E						
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: IGK862F

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	F	+			+
2	A	F	+	+	(a)	
3	A	M	+			+
4	A	F	+	+	+	
5	A	M	+			+
6	A	M	+	+	+	
7	A	F	+			+
8	A	F	+	+	+	
9C	A	F	+			+
10	A	F	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
13	A	M	+			+
14	A	M	+	+	+	
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

NOTE:
(a) - ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK864F

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	F	+			+
4	A	M	+	+	+	
5	A	M	+			(a)
6	A	F	+	+	+	
7	A	M	+			+
8	A	M	+	+	+	
9	A	F	+			+
10C	A	F	+	+	+	
11	A	F	+			(b)
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

NOTE:
(a) - SKELETAL/VERTEBRAE (T12): Bifid centra
(b) - SKELETAL/VERTEBRAE (T10): Bifid centra

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

TARGET DOSE: 2000 MG/M3

ANIMAL NUMBER: IGK827F

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	F	+	+	+	
8C	A	F	+			+
9	A	F	+	+	+	
10	A	F	+			+
E						
11	A	M	+	+	+	
12	A	F	+			(a)
13	A	M	+	+	+	
14	A	F	+			+
15	A	M	+	+	+	

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

Note:Fetus numbers 2, 12, and 14 found with identification tags detached, numbers
arbitrarily assigned for skeletal exams
(a) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK731F

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	+	+	+	
E						
2	A	M	+			+
3	A	M	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6C	A	M	+			+
7	A	F	+	+	+	
8	A	F	+			(b,c)
9	A	M	+	+	+	
10	A	F	+			(a)
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/RIBS (L1): Rudimentary; Bilateral
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra
(c) - SKELETAL/VERTEBRAE (T11 ANLAGE): Dumbbell shaped centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK732F

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	F	+	+	+	
3	A	M	+			(a)
4	A	F	+	+	+	
5	A	M	+			(b,c)
6	A	M	+	+	+	
7	A	F	+			+
8C	A	F	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13	A	F	+			+
14	A	F	+	+	+	
15	A	M	+			(b)
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 (T5,6 Anlage): Misshapen centra
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra
(c) - SKELETAL/VERTEBRAE (T11 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK742F

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	+			(b)
2	A	F	+	+	+	
3	A	F	+			(a)
4	A	M	+	+	+	
5*	A	M	+			+
6	A	M	+	+	+	
7	A	F	+			+
8	A	F	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11C	A	F	+			+
12	A	F	+	+	+	
13	A	M	+			+
14	A	M	+	+	+	
15	A	F	+			+
16	A	F	+	+	+	
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: * - Stunted
(a) - SKELETAL/STERNEBRAE (I): Hypoplastic
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK749F

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	+	(a)	+	
2	A	F	+			+
3	A	F	+	+	+	
4	A	M	+			+
5	A	F	+	+	+	
6	A	M	+			+
7	A	F	+	+	+	
8	A	M	+			+
9C	A	M	+	+	+	
10	A	M	+			+
L						
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) - HEAD: Raised area located subcutaneously on right side of head in sections 3-5.

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK756F

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	
1C	A	F	+			+
2	A	F	+	+	+	
3	A	M	+			+
4	A	M	+	+	+	
5	A	M	+			+
6	A	M	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9	A	M	+			(b)
10	A	F	+	+	+	
11	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/VERTEBRAE (T13): Bifid centra
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK762F

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

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	+			+
2	A	M	+	+	+	
3	A	M	+			(b)
4	A	M	+	+	+	
5	A	M	+			(a,b)
6	A	F	+	+	+	
7	A	M	+			(c)
8	A	M	+	+	+	
9	A	M	+			+
10	A	M	+	+	+	
11C	A	M	+			(b)
12	A	M	+	+	+	
13	A	F	+			(b,d)
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) - SKELETAL/VERTEBRAE (T11): Bifid centra
(b) - SKELETAL/VERTEBRAE (T12): Bifid centra
(c) - SKELETAL/VERTEBRAE (T10): Bifid centra
(d) - SKELETAL/VERTEBRAE (T13): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK769F

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	+	+	+	
8	A	F	+			+
9	A	F	+	+	+	
10	A	F	+			(a,b)
11C	A	F	+	+	+	
12	A	F	+			+
13	A	F	+	+	+	
14	A	F	+			+
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:
(a) - SKELETAL/VERTEBRAE (T11): Bifid centra
(b) - SKELETAL/VERTEBRAE (T12): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK773F

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	F	+			+
E						
3	A	M	+	+	+	
4	A	M	(A)			+
5	A	F	+	+	+	
6	A	F	+			+
7	A	F	+	+	+	
8	A	M	+			+
9	A	M	+	+	+	
10C	A	F	+			+
11	A	F	+	+	+	
12	A	M	+			+
13	A	F	+	+	+	
14	A	M	+			(b)
15	A	F	+	+	+	
16	A	F	+			+
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) - EXTERNAL: Malrotated hindpaw; Left
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK790F

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	M	+	+	+	
3	A	M	+			(a)
4C	A	M	+	+	+	
5	A	M	+			(b)
6	A	M	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	M	+			+
12	A	M	+	+	+	

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

NOTE:
(a) - SKELETAL/VERTEBRAE (T11,13): Bifid centra
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK814F

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	M	+			+
6	A	F	+	+	+	
7	A	F	+			(b)
8	A	F	+	+	+	
9C	A	M	+			+
10	A	F	+	+	+	
11	A	F	+			(a)
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) - SKELETAL/VERTEBRAE (T11): Bifid centra
(b) - SKELETAL/VERTEBRAE (T13): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK800F

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	F	+			+
4	A	M	+	+	+	
5	A	F	+			(a)
6C	A	F	+	+	+	
L						
7	A	F	+			+
8	A	F	+	+	+	
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: Fetus numbers 1, 3, 5, and 7 found with identification tags detached, numbers arbitrarily assigned for skeletal exams
(a) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK796F

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	F	+			+
4	A	M	+	+	+	
5C	A	F	+			(b)
6	A	M	+	+	+	
7	A	M	(A)			+
8	A	M	+	+	+	
9	A	M	+			(c,d)
10	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: Malrotated hindpaw; Right
(b) - SKELETAL/VERTEBRAE (T12, T12 ANLAGE): Bifid centra
(c) - SKELETAL/VERTEBRAE (T11, T11 ANLAGE): Bifid centra
(d) - SKELETAL/VERTEBRAE (T13): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK828F

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	M	+			+
8*	A	F	+	+	+	
9	A	M	+			+
10C	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; Left

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK812F

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	+			(a)
6	A	M	+	+	+	
7	A	M	+			+
8	A	M	+	+	+	
9	A	F	+			+
10	A	F	+	+	+	
11C	A	M	+			+
12	A	M	+	+	+	
13	A	F	+			+
14	A	M	+	+	+	
15	A	F	+			+
16	A	M	+	+	+	
E						
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; Bilateral

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK831F

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	M	+	+	+	
2	A	M	+			(d,e)
3	A	M	+	+	+	
4	A	F	+			(b)
5	A	M	+	+	+	
6	A	F	+			+
7	A	M	+	+	+	
8C	A	F	+			+
9	A	F	+	+	+	
10	A	M	+			+
11	A	F	+	+	+	
12	A	F	+			(c)
13	A	F	+	+	+	
14	A	M	+			+
15	A	F	+	+	(A)	
16	A	F	+			+

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

NOTE:
(A) - ABDOMEN/THORAX: Hydroureter; Left
(b) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(c) - SKELETAL/RIBS (L1): Rudimentary; Right
(d) - SKELETAL/VERTEBRAE (T5): Bifid centra
(e) - SKELETAL/VERTEBRAE (T5 Anlage): Dumbbell shaped centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK842F

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

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+
2	A	M	+	+	+	
3	A	M	+			(a)
4	A	M	+	+	+	
5	A	F	+			(b)
6	A	F	+	+	+	
7	A	F	+			(c)
8C	A	M	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			(d)
12	A	F	+	+	+	
13	A	M	+			+
14	A	M	+	+	+	
15	A	F	+			(b,c)
16	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): Bifid centra
(c) - SKELETAL/VERTEBRAE (T13): Bifid centra
(d) - SKELETAL/VERTEBRAE (T10,12): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK813F

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	+	+	+	
4C	A	M	+			+
5	A	F	+	+	+	
6	A	F	+			+
7	A	M	+	+	+	
8	A	F	+			+
9	A	M	+	+	+	
10	A	M	+			+
11	A	M	+	+	+	
12	A	F	+			+
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: 10000 MG/M3

ANIMAL NUMBER: IGK847F

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

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 10 found with identification tags detached, numbers
arbitrarily assigned for skeletal exams
(a) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK835F

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	M	+			+
3	A	F	+	+	(*,a)	
4	A	F	+			+
5	A	M	+	+	+	
6	A	F	+			(c)
7	A	F	+	+	+	
8	A	F	+			+
9C	A	M	+	+	+	
10	A	M	+			(b)
11	A	M	+	+	+	
12	A	F	+			(c)
13	A	M	+	+	+	
14	A	M	+			+
15	A	M	+	+	+	
16	A	M	+			(d)
17	A	M	+	+	+	

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

NOTE:
(*) - ABDOMEN/THORAX: Liver discolored tan and dark red
(a) - ABDOMEN/THORAX: Fluid-filled abdomen (red)
(b) - SKELETAL/STERNEBRAE (I): Hypoplastic
(c) - SKELETAL/VERTEBRAE (T12): Bifid centra
(d) - SKELETAL/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK787F

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	+	+	+	
E						
4	A	M	+			+
5	A	F	+	+	+	
6	A	M	+			(a)
7	A	F	+	+	+	
8	A	M	+			+
9	A	F	+	+	+	
10C	A	F	+			+
11	A	F	+	+	+	
E						
12	A	M	+			(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/VERTEBRAE (T11): Bifid centra
(b) - SKELETAL/VERTEBRAE (T13):Bifid centra
(c) - SKELETAL/VERTEBRAE (T13 ANLAGE):Dumbbell shaped centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK803F

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	+			(a)
5	A	M	+	+	+	
6	A	F	+			+
7	A	F	+	+	+	
8	A	F	+			+
9C	A	F	+	+	+	
10	A	M	+			+
E						
11	A	M	+	+	+	
12	A	F	+			(b)
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: Fetus numbers 6, 8, and 14 found with identification tags detached, numbers arbitrarily assigned for skeletal exams
(a) - SKELETAL/RIBS (L1): Rudimentary: Bilateral
(b) - SKELETAL/VERTEBRAE (T12): Bifid centra

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK806F

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	+			+
6	A	M	+	+	+	
7	A	M	+			+
8	A	M	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			(a,b)
12	A	M	+	+	+	
13	A	M	+			+
14	A	M	+	+	+	

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

NOTE:
(a) - SKELETAL/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: IGK810F

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	M	+	+	(A)	
3	A	F	+			+
4	A	F	+	+	+	
5	A	M	+			+
6	A	F	+	+	+	
7	A	M	+			+
8	A	M	+	+	+	
9	A	M	+			+
10C	A	F	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
13	A	M	+			+
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

NOTE:
(A) - ABDOMEN/THORAX: Hydronephrosis; (location not recorded)

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

TARGET DOSE: 10000 MG/M3

ANIMAL NUMBER: IGK852F

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	+			+
E						
4	A	F	+	+	+	
5C	A	M	+			(a)
6	A	M	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9	A	F	+			+

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

NOTE:
(a) - SKELETAL/VERTEBRAE (T12): Bifid centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK733F

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	M	+			+
5	A	M	+	+	+	
6	A	M	+			+
7	A	M	+	+	+	
8C	A	F	+			+
9	A	M	+	+	+	
10	A	M	+			+
11	A	F	+	+	+	
12	A	F	+			+
13	A	F	+	+	+	
E						
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: 20000 MG/M3

ANIMAL NUMBER: IGK781F

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

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

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK743F

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	+			+
7C	A	M	+	+	+	
8	A	M	+			(a)
9	A	F	+	+	+	
10	A	M	+			+
11	A	F	+	+	+	
12	A	F	+			+
13	A	M	+	+	+	
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:
(a) - SKELETAL/STERNEBRAE (I,II): Hypoplastic

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK783F

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	M	+			+
3	A	F	+	+	+	
4	A	M	+			+
5	A	M	+	+	+	
6	A	M	+			+
7	A	F	+	+	+	
8C	A	M	+			+
9	A	M	+	+	+	
10	A	F	+			+
11	A	F	+	+	+	
12	A	M	+			+
13	A	M	+	+	+	
14	A	F	+			+
E						
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) - ABDOMEN/THORAX: Hydroureter; Right
(B) - ABDOMEN/THORAX: Hydronephrosis; Right

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK735F

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	+			+
3	A	M	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6C	A	F	+			(b,c)
7	A	F	+	+	+	
8	A	M	+			+
9	A	M	+	+	+	
10	A	M	+			+
11	A	F	+	+	+	
12	A	M	+			+
13	A	M	+	+	+	
14	A	F	+			(a)
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 (T13): Short last rib; Right
(b) - SKELETAL/VERTEBRAE (T11): Bifid centra
(c) - SKELETAL/VERTEBRAE (T11 ANLAGE): Dumbbell shaped centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK797F

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	+			+

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: IGK764F

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	M	+			+
6	A	F	+	+	+	
7	A	M	+			(a)
8	A	F	+	+	+	
9C	A	M	+			+
10	A	M	+	+	+	
11	A	M	+			+
12	A	M	+	+	+	
13	A	M	+			+
14	A	F	+	+	+	
15	A	M	+			(b)
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/VERTEBRAE (T11): Bifid centra
(b) - SKELETAL/VERTEBRAE (T13): Bifid centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK771F

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	F	+			+
5	A	F	+	+	+	
6	A	F	+			+
7C	A	M	+	+	+	
E						
8	A	M	+			+
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: 20000 MG/M3

ANIMAL NUMBER: IGK791F

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	M	+			+
3	A	F	+	+	+	
4	A	M	+			+
5	A	F	+	+	+	
6	A	F	+			(b)
7C	A	M	+	+	+	
8	A	M	+			+
9	A	F	+	+	+	
10	A	F	+			(a)
11	A	F	+	+	+	
12	A	F	+			+

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

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Right
(b) - SKELETAL/VERTEBRAE (T12): Bifid centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK751F

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	+	+	+	
E						
4	A	F	+			+
5	A	M	+	+	+	
6	A	F	+			(a,b)
7	A	F	+	+	+	
8	A	F	+			+
9	A	F	+	+	+	
10C	A	M	+			+
11	A	F	+	+	+	
12	A	M	+			+
13	A	F	+	+	+	
14	A	M	+			+
15	A	M	+	+	+	
16	A	F	+			+
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: Fetus numbers 6, 8, 10, and 12 found with identification tags detached, numbers arbitrarily assigned for skeletal exams
(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: 20000 MG/M3

ANIMAL NUMBER: IGK761F

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	F	+	+	+	
4	A	M	+			+
5	A	F	+	+	+	
6	A	F	+			+
7	A	F	+	+	+	
8	A	M	+			(a)
9	A	F	+	+	+	
10	A	F	+			+
11	A	M	+	+	+	
12C	A	F	+			+
13	A	F	+	+	+	
14	A	M	+			(b)
15	A	F	+	+	+	
16	A	M	+			+
17	A	M	+	+	+	
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/VERTEBRAE (T11): Bifid centra
(b) - SKELETAL/VERTEBRAE (T10): Bifid centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK768F

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	+			(a,b)
2	A	F	+	+	+	
3	A	M	+			+
4	A	M	+	+	+	
5	A	F	+			+
6C	A	M	+	+	+	
7	A	F	+			+
8	A	F	+	+	+	
9	A	M	+			+
10	A	M	+	+	+	
11	A	M	+			+
12	A	M	+	+	+	
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/VERTEBRAE (T10): Bifid centra
(b) - SKELETAL/VERTEBRAE (T10 ANLAGE): Dumbbell shaped centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK801F

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	F	+	+	+	
6	A	F	+			+
7C	A	M	+	+	+	
8	A	M	+			+
9	A	M	+	+	+	
10	A	F	+			+
11	A	M	+	+	+	
12	A	M	+			(a)
13	A	F	+	+	+	
14	A	F	+			+
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/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK757F

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	M	+			+
3	A	F	+	+	(*)	
4	A	F	+			+
5	A	M	(A)			(c,d)
6	A	F	+			+
7	A	F	+	+	+	
8	A	F	+			+
E						
9	A	F	+	+	+	
10	A	M	+			+
11C	A	M	+	+	(B)	
12	A	F	+			+
13	A	F	+	+	+	
14	A	F	+			+
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: (*) - Too autolyzed to be examined
(A) - EXTERNAL: Misshapen head
(B) - ABDOMEN/THORAX: Hydronephrosis; Right
(c) - SKELETAL/VERTEBRAE (T8): Bifid centra
(d) - SKELETAL/VERTEBRAE (T8 ANLAGE): Dumbbell shaped centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK808F

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	M	+	+	+	
7	A	M	+			+
8*	A	F	+	+	+	
9C	A	M	+			+
10	A	M	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13	A	M	+			+
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

NOTE: * - Stunted

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK826F

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	+			(c)
2	A	M	+	+	+	
3	A	M	+			(a,b,c)
4	A	F	+	+	+	
5	A	F	+			+
6	A	M	+	+	+	
7	A	M	+			+
8	A	M	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11C	A	F	+			(b)
12	A	F	+	+	+	
13	A	M	+			(a,d)
14	A	M	+	+	+	
15	A	M	+			+
16	A	F	+	+	+	
L						

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 (T12): Bifid 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: IGK832F

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	M	+			+
6	A	M	+	+	+	
7	A	F	+			+
8	A	M	+	+	+	
9	A	M	+			+
10C	A	M	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	
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

NOTE: * - Stunted

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK834F

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	+	+	+	
5	A	M	+			+
6	A	F	+	+	+	
7	A	M	+			+
8	A	F	+	+	+	
9C	A	F	+			+
10	A	M	+	+	+	
11*	A	M	+			(a)
12	A	M	+	+	+	
13	A	F	+			+
14	A	M	+	+	+	
15	A	F	+			+
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

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

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK798F

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	+			+
4C	A	F	+	+	+	
5	A	F	+			+
6	A	M	+	+	+	
7	A	F	+			+
8	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	+	+	+	

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: IGK818F

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	F	+	+	+	
7	A	M	+			+
8	A	M	+	+	+	
9	A	F	+			+
10	A	M	+	+	+	
11C	A	M	+			+
12	A	M	+	+	+	
13	A	M	+			+
14	A	F	+	+	+	
15	A	M	+			(a)
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/VERTEBRAE (T11): Bifid centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK850F

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	F	+	+	+	
7C	A	F	+			+
8	A	F	+	+	+	
9	A	F	+			(a)
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

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Left

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK802F

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	+			(a)
2	A	M	+	+	+	
3	A	F	+			(a)
4	A	F	+	+	+	
5	A	F	+			+
6	A	M	+	+	+	
7	A	M	+			+
8	A	M	+	+	+	
9	A	F	+			+
10	A	F	+	+	+	
11C	A	F	+			+
12	A	F	+	+	+	
13	A	F	+			+
14	A	M	+	+	+	
15	A	M	+			+
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:
(a) - SKELETAL/VERTEBRAE (T12): Bifid centra

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK821F

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	(*)			+
3C	D	F	(*)	(**)	(***,****)	
4	A	F	+			+
5	A	F	+	+	+	
6	A	M	+			+
7	A	F	+	+	+	
8	A	F	+			+
9	A	M	+	+	+	
10	A	F	+			+
11	A	F	+	+	+	
12	A	F	+			+
13	A	F	+	+	+	
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:
(*) - EXTERNAL: Red material around placenta.
(**) - HEAD: Abnormal contents in nasal passages.
(***) - ABDOMEN/THORAX: Kidney discolored white; Bilateral
(****) - ABDOMEN/THORAX: Lungs discolored white.

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

TARGET DOSE: 20000 MG/M3

ANIMAL NUMBER: IGK849F

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	F	+	+	+	
2	A	M	+			+
3	A	M	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6	A	F	+			(a)
7C	A	F	+	+	+	
8	A	M	+			+
9	A	F	+	+	+	
10	A	M	+			(b)
11	A	M	+	+	+	
12	A	F	+			+
13	A	F	+	+	+	
14	A	F	+			(C,D)
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; Bilateral
(b) - SKELETAL/RIBS (L1): Rudimentary; Right
(C) - SKELETAL/VERTEBRAE (T5): Malformed centra
(D) - SKELETAL/VERTEBRAE (T5 Cartilage): Malformed centra

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 or plastic 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.

In-Chamber Observations

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.

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 diptube 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: Figures I-1 and I-2
Analytical calibration response curve: Figure I-3
Gas chromatograph operating conditions: Table I-2
Mean exposure data: Table I-1
Summary of exposure data: Table I-3

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

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

The analytical system was calibrated against a series of known concentrations of the test substance in air. The air concentrations were determined by injecting a weighed amount the test substance from a gas-tight syringe into a closed loop system of a known air volume (see schematical 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.

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 the component proportions of the test material atmosphere compared to the liquid test material.

APPENDIX I - INHALATION EXPOSURE DATA

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 third 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 third week of exposures, and on the last day of exposures.

Particle Size Analysis.

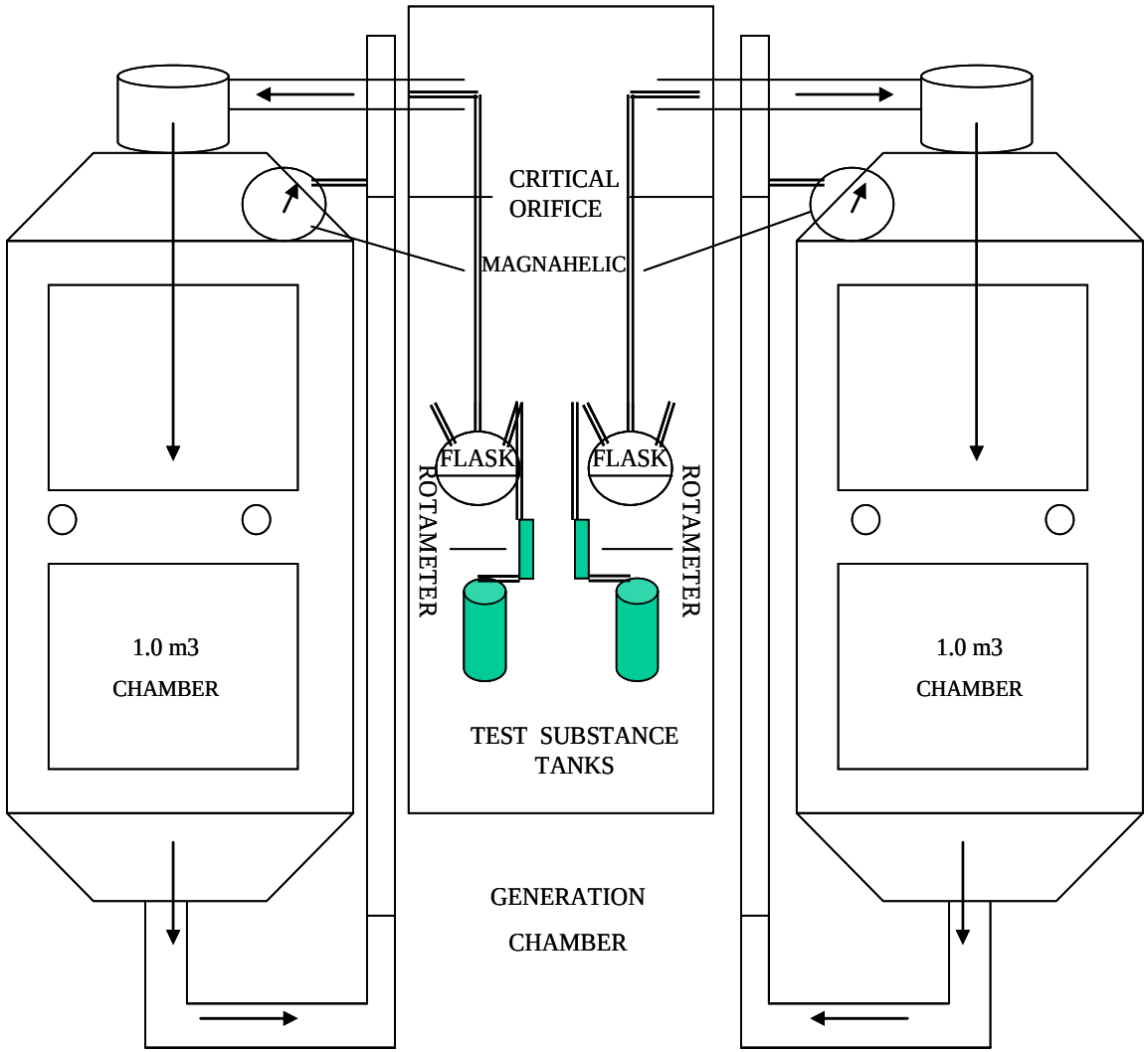
Table I-6 presents a summary of the particle size data.

A particle size determination of the aerosol portion of the test atmosphere was conducted during the chamber trials from the control and 20,000 mg/m^3 target concentrationchambers. The particle size sampling indicated aerosol concentrations of 1.0 and 1.5 mg/m^3 for the control and 20,000 $mg.m^3$ target chambers. These small concentrations of aerosol were likely due to animal hair or dander.

The sample was taken using a multistage cascade impactor. Preweighed glass fiber filters were used to collect aerosol on each stage. Each stage was associated with specific cutoff diameters for aerodynamic particle size in microns.

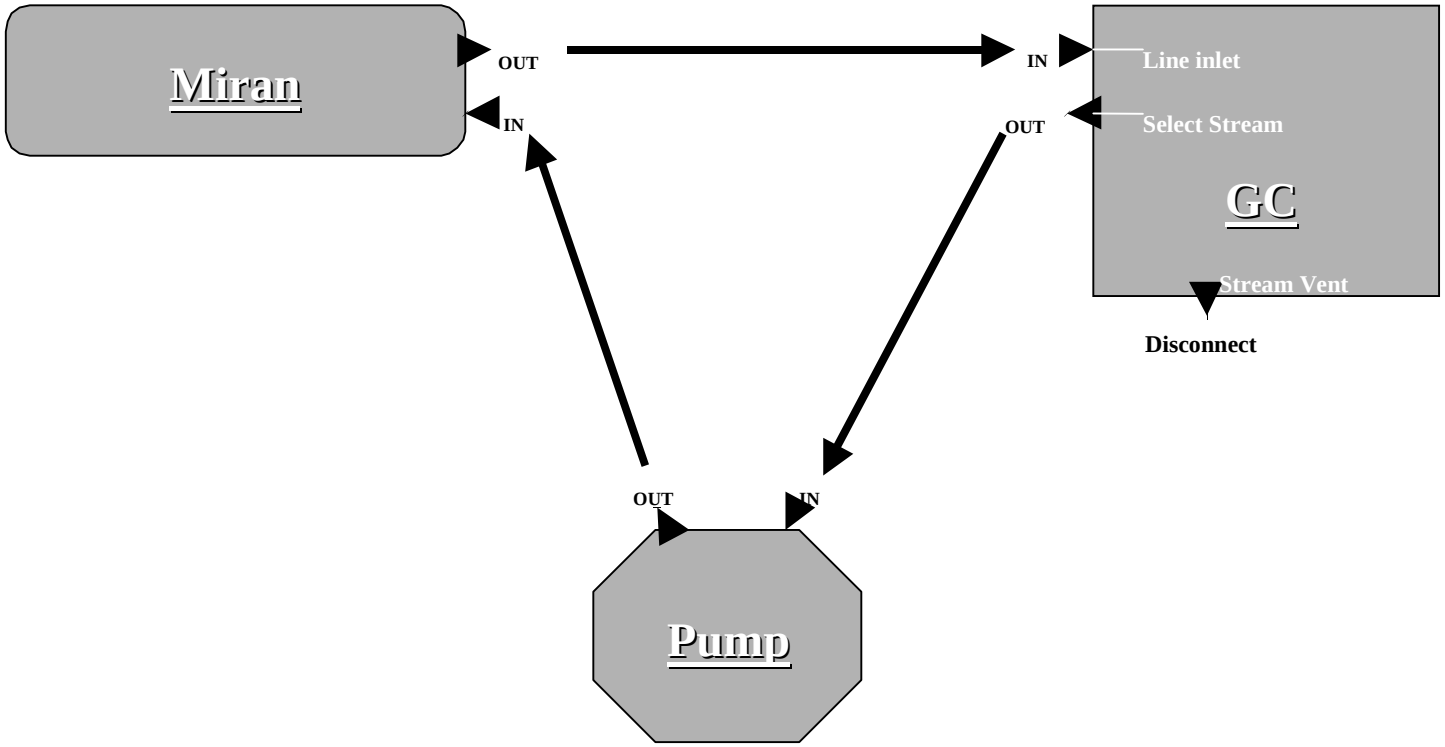
The flow of air and the duration of the flow was recorded in the data. This provided the information needed to convert the amount of aerosol captured in the cascade impactor to a chamber concentration.

APPENDIX I - INHALATION EXPOSURE DATA
FIGURE I-1 - SCHEMATIC OF GENERATION AND EXPOSURE SYSTEM



APPENDIX I - INHALATION EXPOSURE DATA

FIGURE I-2 - SCHEMATIC OF THE ANALYTICAL CALIBRATION SYSTEM



APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-1 - MEAN EXPOSURE DATA

TARGET DOSE:	**0 mg/m^3**	**2000 mg/m^3**	**10,000 mg/m^3**	**20,000 mg/m^3**
Target Exposure Concentration (mg/m^3)	0	2000	10000	20000
Mean Analytical Exposure Concentration (mg/m^3)	0	2017	10198	20755
Average Chamber Temperature (^{O}F)	68	71	75	71
Average Chamber Relative Humidity (% RH)	68	61	57	64

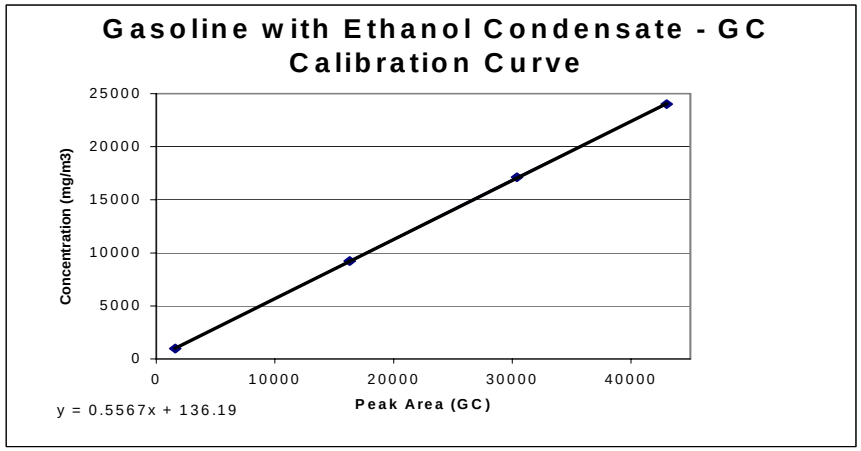
APPENDIX I - INHALATION EXPOSURE DATA

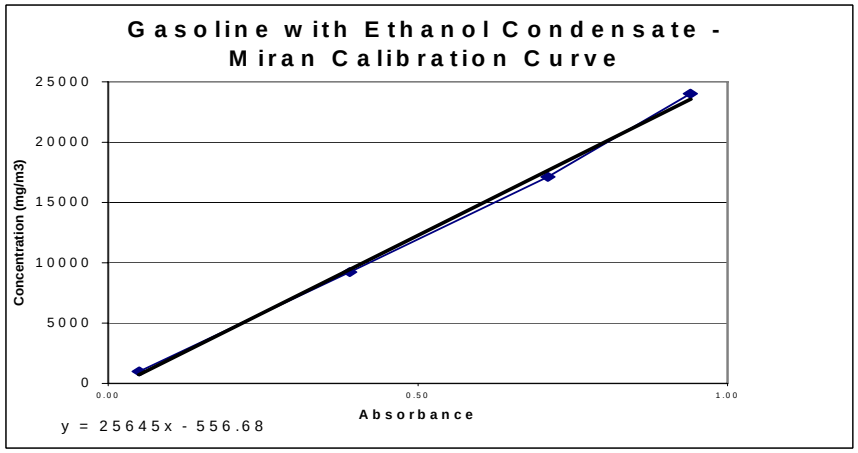
TABLE I-2 - GAS CHROMATOGRAPH OPERATING CONDITIONS

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 RESONSE CURVES





APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 - SUMMARY OF EXPOSURE DATA

Target Dose	0 mg/m^3				2000 mg/m^3				10000 mg/m^3				20000 mg/m^3			
	Mean	Nominal	Chamber		Mean	Nominal	Chamber		Mean	Nominal	Chamber		Mean	Nominal	Chamber	
Date	(mg/m^3)	(mg/m^3)	^{o}F	% Rh	(mg/m^3)	(mg/m^3)	^{o}F	% Rh	(mg/m^3)	(mg/m^3)	^{o}F	% Rh	(mg/m^3)	(mg/m^3)	^{o}F	% Rh
24-Nov-01	0	0	66	64	2048	2215	70	49	9719	10935	71	59	20189	20818	69	65
25-Nov-01	0	0	66	72	2223	2239	70	64	9843	10967	72	57	20751	20617	68	72
26-Nov-01	0	0	66	71	1936	1942	70	57	9881	10957	75	55	20308	20465	70	64
27-Nov-01	0	0	67	76	2004	2049	68	72	9887	10896	75	55	20539	20746	71	61
28-Nov-01	0	0	69	64	2015	2028	72	61	10224	10589	75	57	20989	20694	71	64
29-Nov-01	0	0	67	66	2013	2031	71	57	10144	10418	74	55	21069	20432	71	60
30-Nov-01	0	0	68	68	1860	1997	72	64	9770	10314	75	59	20793	20413	71	68
1-Dec-01	0	0	68	72	1932	2040	71	72	10024	10919	75	61	20823	20472	69	71
2-Dec-01	0	0	68	64	2079	2076	70	58	10245	10738	72	58	21162	20594	70	64
3-Dec-01	0	0	68	78	2014	2015	71	70	10151	10667	74	66	20832	20908	70	72
4-Dec-01	0	0	71	69	1990	1972	73	60	10273	10496	76	57	21282	20096	73	62
5-Dec-01	0	0	70	70	1973	1929	74	60	10264	10635	77	54	20912	19726	74	62
6-Dec-01	0	0	70	65	2020	1951	74	59	10240	10753	78	54	21223	20090	73	61
7-Dec-01	0	0	70	68	2033	2065	74	59	9756	9553	77	55	19913	19183	73	61
8-Dec-01	0	0	69	74	2138	2078	71	68	10583	10724	75	61	21537	20494	72	64
9-Dec-01	0	0	70	65	2019	2067	74	60	10132	10665	75	62	20597	19843	73	63
10-Dec-01	0	0	69	64	1984	1993	73	61	10063	10511	76	57	20668	19693	73	62
11-Dec-01	0	0	70	65	2070	2196	73	59	10669	10560	76	56	20635	20207	73	62
12-Dec-01	0	0	68	70	2069	1986	72	63	10189	10524	75	56	20743	19593	71	67
13-Dec-01	0	0	68	65	2033	2008	72	58	10186	10493	73	58	20445	19519	71	61
14-Dec-01	0	0	68	65	1948	1949	71	60	10684	11026	75	55	20352	19718	71	61
15-Dec-01	0	0	68	67	2079	2258	71	61	10462	10875	73	60	21488	20004	70	69
16-Dec-01	0	0	68	65	2049	2029	71	59	10411	10496	74	57	20145	20072	70	63
17-Dec-01	0	0	66	71	2029	1981	70	64	10724	10807	74	56	20794	19797	70	65
18-Dec-01	0	0	67	63	1870	2003	70	61	10298	10719	74	54	20752	19619	70	63
19-Dec-01	0	0	66	73	2021	2094	70	62	10330	9660	73	58	20694	19556	69	65
MEAN	0	0	68	68	2017	2046	71	61	10198	10611	75	57	20755	20130	71	64
SD	0	0	2	4	75	91	2	5	2685	351	2	3	398	476	2	4
Min.	0	0	66	63	1860	1929	68	49	9719	9553	71	54	19913	19183	68	60
Max.	0	0	71	78	2223	2258	74	72	10724	11026	78	66	21537	20908	74	72

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 - SUMMARY OF EXPOSURE DATA

TARGET DOSE - 0 mg/m^3

Date	Exposure Number	Nominal Concentration (mg/m^3)	Mean Analytical Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
24-Nov-01	1	0	0	***66***	***64***
25-Nov-01	2	0	0	***66***	***72***
26-Nov-01	3	0	0	***66***	***71***
27-Nov-01	4	0	0	***67***	***76***
28-Nov-01	5	0	0	69	***64***
29-Nov-01	6	0	0	***67***	***66***
30-Nov-01	7	0	0	68	***68***
1-Dec-01	8	0	0	68	***72***
2-Dec-01	9	0	0	68	***64***
3-Dec-01	10	0	0	68	***78***
4-Dec-01	11	0	0	71	***69***
5-Dec-01	12	0	0	70	***70***
6-Dec-01	13	0	0	70	***65***
7-Dec-01	14	0	0	70	***68***
8-Dec-01	15	0	0	69	***74***

Values in bold italics are protocol deviations

APPENDIX I - INHALATION EXPOSURE DATA

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

TARGET DOSE - 0 mg/m^3

Date	Exposure Number	Nominal Concentration (mg/m^3)	Mean Analytical Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
9-Dec-01	16	0	0	70	***65***
10-Dec-01	17	0	0	69	***64***
11-Dec-01	18	0	0	70	***65***
12-Dec-01	19	0	0	68	***70***
13-Dec-01	20	0	0	68	***65***
14-Dec-01	21	0	0	68	***65***
15-Dec-01	22	0	0	68	***67***
16-Dec-01	23	0	0	68	***65***
17-Dec-01	24	0	0	***66***	***71***
18-Dec-01	25	0	0	***67***	***63***
19-Dec-01	26	0	0	***66***	***73***
Mean		**0**	**0**	**68**	**68**
Std. Dev.		**0**	**0**	**1.5**	**4.2**

Values in bold italics are protocol deviations

APPENDIX I - INHALATION EXPOSURE DATA

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

TARGET DOSE - 2000 mg/m^3

Date	Exposure Number	Nominal Conc. (mg/m^3)	Hourly Analytical Concentrations (mg/m^3) 1	2	3	4	5	6	Mean Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
24-Nov-01	1	2215	2063	1946	1998	1977	2192	2110	2048	70	49
25-Nov-01	2	2239	2061	1949	2258	2174	1703	3192	2223	70	***64***
26-Nov-01	3	1942	1934	1861	2023	2038	1833	1927	1936	70	57
27-Nov-01	4	2049	1954	2130	2166	1893	1959	1921	2004	68	***72***
28-Nov-01	5	2028	1985	2080	2135	2031	1746	2113	2015	72	***61***
29-Nov-01	6	2031	2104	2109	1997	2088	1959	1819	2013	71	57
30-Nov-01	7	1997	1898	1996	1890	1735	1703	1936	1860	72	***64***
1-Dec-01	8	2040	2102	2032	1522	1911	2065	1960	1932	71	***72***
2-Dec-01	9	2076	2211	2452	1877	2143	1950	1838	2079	70	58
3-Dec-01	10	2015	2014	2148	2047	1986	1859	2031	2014	71	***70***
4-Dec-01	11	1972	2023	2081	1959	2170	1900	1804	1990	73	60
5-Dec-01	12	1929	2026	2132	2063	1981	1656	1977	1973	74	60
6-Dec-01	13	1951	2146	1982	1900	1896	2138	2058	2020	74	59
7-Dec-01	14	2065	1752	2105	1915	2266	2231	1930	2033	74	59
8-Dec-01	15	2078	2178	2237	2175	2111	2076	2053	2138	71	***68***

Hourly Analytical Concentrations (mg/m^3) have been rounded.
Values in bold italics are protocol deviations

APPENDIX I - INHALATION EXPOSURE DATA

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

TARGET DOSE - 2000 mg/m^3

Date	Exposure Number	Nominal Conc. (mg/m^3)	Hourly Analytical Concentrations (mg/m^3) 1	2	3	4	5	6	Mean Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
9-Dec-01	16	2067	2003	2144	2058	1871	1978	2061	2019	74	60
10-Dec-01	17	1993	1965	2211	2005	1794	1750	2176	1984	73	***61***
11-Dec-01	18	2196	1902	2117	2129	2011	2089	2172	2070	73	59
12-Dec-01	19	1986	2005	2145	2086	2142	1999	2036	2069	72	***63***
13-Dec-01	20	2008	2185	2004	2093	2053	1782	2079	2033	72	58
14-Dec-01	21	1949	2190	2048	2035	1886	1452	2078	1948	71	60
15-Dec-01	22	2258	2072	2034	2107	2038	2130	2091	2079	71	***61***
16-Dec-01	23	2029	2059	2133	2032	2037	1992	2040	2049	71	59
17-Dec-01	24	1981	2149	2115	2128	1857	1974	1949	2029	70	***64***
18-Dec-01	25	2003	1884	1998	2113	1030	2176	2019	1870	70	***61***
19-Dec-01	26	2094	1857	2148	2078	2029	1973	2040	2021	70	***62***
MEAN		2046							2017	71	61
Std. Dev.		90.5							75.3	1.6	4.9

Values in bold italics are protocol deviations

APPENDIX I - INHALATION EXPOSURE DATA

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

TARGET DOSE - 10,000 mg/m^3

Date	Exposure Number	Nominal Conc. (mg/m^3)	Hourly Analytical Concentration (mg/m^3) 1	2	3	4	5	6	Mean Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
24-Nov-01	1	10935	9379	9697	9586	9719	9887	10045	9719	71	59
25-Nov-01	2	10967	9362	9733	9756	9760	10465	9979	9843	72	57
26-Nov-01	3	10957	9243	9374	9881	10266	10362	10159	9881	75	55
27-Nov-01	4	10896	9526	10104	10011	9708	10374	9600	9887	75	55
28-Nov-01	5	10589	9812	9630	10353	10521	10482	10543	10224	75	57
29-Nov-01	6	10418	10423	10499	10052	9784	10024	10079	10144	74	55
30-Nov-01	7	10314	10300	9936	9483	9218	8797	10886	9770	75	59
1-Dec-01	8	10919	9895	10346	10009	10085	9414	10395	10024	75	***61***
2-Dec-01	9	10738	10100	10103	10129	10555	10356	10225	10245	72	58
3-Dec-01	10	10667	10260	10319	10110	10286	9886	10044	10151	74	66
4-Dec-01	11	10496	10275	10025	10371	9996	10532	10440	10273	***76***	57
5-Dec-01	12	10635	10013	10218	10056	9707	10872	10719	10264	***77***	54
6-Dec-01	13	10753	10434	10468	10102	9767	10439	10229	10240	***78***	54
7-Dec-01	14	9553	8933	9643	8940	10383	10345	10289	9756	***77***	55
8-Dec-01	15	10724	10410	9930	10879	10570	10871	10836	10583	***75***	***61***

Values in bold italics are protocol deviations

APPENDIX I - INHALATION EXPOSURE DATA

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

TARGET DOSE - 10,000 mg/m^3

Date	Exposure Number	Nominal Conc. (mg/m^3)	Hourly Analytical Concentration (mg/m^3) 1	2	3	4	5	6	Mean Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
9-Dec-01	16	10665	9980	10096	10238	10094	10287	10097	10132	75	***62***
10-Dec-01	17	10511	10038	9549	10292	10011	10058	10427	10063	***76***	57
11-Dec-01	18	10560	10282	10285	10710	10880	10515	11343	10669	***76***	56
12-Dec-01	19	10524	10231	10579	10138	10460	10235	9488	10189	75	56
13-Dec-01	20	10493	10062	9880	10766	9298	10554	10553	10184	73	58
14-Dec-01	21	11026	10111	10407	10765	10936	10998	10889	10685	75	55
15-Dec-01	22	10875	10735	10106	10507	10592	10520	10310	10462	73	60
16-Dec-01	23	10496	10292	10330	10879	10680	9770	10517	10411	74	57
17-Dec-01	24	10807	10329	10898	10518	10910	11303	10384	10724	74	56
18-Dec-01	25	10719	10162	10187	10496	10448	10440	10055	10298	74	54
19-Dec-01	26	9660	10205	10835	10826	8718	10026	11372	10330	73	58
MEAN		10611							10198	75	57
Std. Dev.		351.3							284.92	1.6	2.9

Values in bold italics are protocol deviations

APPENDIX I - INHALATION EXPOSURE DATA

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

TARGET DOSE - 20,000 mg/m^3

Date	Exposure Number	Nominal Conc. (mg/m^3)	Hourly Analytical Concentration (mg/m^3) 1	2	3	4	5	6	Mean Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
24-Nov-01	1	20818	19461	20033	19990	20342	20796	20511	20189	69	***65***
25-Nov-01	2	20617	19790	21183	21183	20862	20666	20821	20751	68	***72***
26-Nov-01	3	20465	19642	20259	20707	20482	20358	20402	20308	70	***64***
27-Nov-01	4	20746	20484	20581	20622	20387	20638	20520	20539	71	***61***
28-Nov-01	5	20694	21049	20812	20654	21204	20850	21364	20989	71	***64***
29-Nov-01	6	20432	20593	21114	21259	21096	21070	21281	21069	71	60
30-Nov-01	7	20413	20524	22038	20935	20498	20007	20756	20793	71	***68***
1-Dec-01	8	20472	20748	20822	20666	20826	20689	21189	20823	69	***71***
2-Dec-01	9	20594	20840	21458	21144	20855	21386	21289	21162	70	***64***
3-Dec-01	10	20908	20730	21091	21020	20598	21227	20323	20832	70	***72***
4-Dec-01	11	20096	22145	21600	21764	21364	20471	20348	21282	73	***62***
5-Dec-01	12	19726	21632	21394	21398	21184	19917	19944	20912	74	***62***
6-Dec-01	13	20090	21754	21290	20641	20806	21563	21286	21223	73	***61***
7-Dec-01	14	19183	18427	19973	19488	20692	20489	20409	19913	73	***61***
8-Dec-01	15	20494	21421	19822	22334	22074	21851	21719	21537	72	***64***

Values in bold italics are protocol deviations

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

TARGET DOSE - 20,000 mg/m^3

Date	Exposure Number	Nominal Conc. (mg/m^3)	Hourly Analytical Concentration (mg/m^3) 1	2	3	4	5	6	Mean Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
9-Dec-01	16	19843	20968	20758	20309	20055	19866	21624	20597	73	***63***
10-Dec-01	17	19693	21124	20165	20669	20363	20811	20876	20668	73	***62***
11-Dec-01	18	20207	20496	20931	20558	20346	20698	20781	20635	73	***62***
12-Dec-01	19	19593	21267	20725	20494	21044	20347	20580	20743	71	***67***
13-Dec-01	20	19519	20029	20196	20242	20875	20922	20403	20445	71	***61***
14-Dec-01	21	19718	19831	20823	20212	20475	20391	20377	20352	71	***61***
15-Dec-01	22	20004	21727	21315	20876	21651	21719	21639	21488	70	***69***
16-Dec-01	23	20072	19907	20417	20238	20015	20074	20221	20145	70	***63***
17-Dec-01	24	19797	19988	20908	20616	21322	21602	20326	20794	70	***65***
18-Dec-01	25	19619	20755	20990	21594	21402	19834	19936	20752	70	***63***
19-Dec-01	26	19556	20405	21068	20853	20602	20353	20885	20694	69	***65***
MEAN		20130							20755	71	64
Std. Dev.		475.6							397.99	1.6	3.5

Values in bold italics are protocol deviations

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-4 - SUMMARY OF DISTRIBUTION SAMPLES

SAMPLE LOCATION	TARGET EXPOSURE LEVELS		
	2000 MG/M^3	10,000 MG/M^3	20,000 MG/M^3
Left Top Back	1905	10619	18748
Left Top Front	1849	10452	20893
Left Middle Back	1875	10161	20936
Left Middle Front	1990	10186	20109
Left Bottom Back	1837	10205	19118
Left Bottom Front	1963	10377	20614
Right Top Back	1843	10362	18710
Right Top Front	1954	10215	20754
Right Middle Back	1862	10353	21230
Right Middle Front	1758	10573	19119
Right Bottom Back	1800	10381	18697
Right Bottom Front	1781	10253	21329
MEAN	1868	10345	20021
SD	73.24	149.33	1061.22
%CV	3.92	1.44	5.30
Minimum	1758	10161	18697
Maximum	1990	10619	21329

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 approcximately 8 minute intervals.

APPENDIX I - INHALATION EXPOSURE DATA
TABLE I-5 - LIGHTING, NOISE, AND OXYGEN LEVELS

	November 24, 2001	December 8, 2001	December 19, 2001
Light Intensity: (fc)			
Center of room PE103 3 feet above the floor.	9.0	8.7	4.6
Center of room PE102 3 feet above the floor.	32.6	32.3	32.0
Center of room PE 110 3 feet above the floor.	34.9	35.2	40.0
Noise level: (db)			
1m - 1: Door open	79.2	79.4	76.6
1m - 1: Through port	81.3	81.0	78.6
1m - 2: Door open	78.2	78.5	75.7
1m - 2: Through port	80.7	80.5	79.6
1m - 3: Door open	79.4	79.6	78.5
1m - 3: Through port	81.2	81.6	79.5
1m - 4: Door open	77.2	78.0	74.2
1m - 4: Through port	79.3	79.1	75.5
O_2 Level: (%) (Reading upon removal)	No Alarms	No Alarms	No Alarms
1m - 1	20.7	20.7	20.7
1m - 2	20.7	20.7	20.6
1m - 3	20.8	20.7	20.7
1m - 4	20.6	20.7	20.6

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	10	50
6	1.50	0	0
5	2.60	0	0
4	4.10	0	0
3	6.80	0	0
2	17.0	10	50
1	28.0	0	0
		TOTAL =20	

PARTICLE CONCENTRATION = 1 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 (CONT'D)

20,000 MG/M^3 TARGET

IMPACTOR STAGE	STAGE CONSTANT (um)	FILTER WEIGHT DIFFERENCE (UG)	PERCENT IN SIZE RANGE
FILTER	0.30	0	0
8	0.54	0	0
7	0.84	0	0
6	1.50	0	0
5	2.60	10	33.3
4	4.10	10	33.3
3	6.80	0	0
2	17.0	10	33.3
1	28.0	0	0
		TOTAL =30	
CONCENTRATION OF PARTICLES = 1.5 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 (CONT'D)
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**
24-Nov-01	***65***	***65***	***65***	***65***	***65***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***
25-Nov-01	***64***	***64***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***
26-Nov-01	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***
27-Nov-01	***62***	***64***	***64***	***66***	***66***	***66***	68	68	68	68	68	70	70
28-Nov-01	***66***	68	68	68	70	70	70	70	70	70	70	70	70
29-Nov-01	***66***	66	66	66	68	68	68	68	68	68	68	68	68
30-Nov-01	***66***	68	68	68	68	68	68	68	68	70	70	70	70
1-Dec-01	***66***	66	66	68	68	68	68	68	68	68	68	68	68
2-Dec-01	***66***	68	68	68	68	68	68	68	68	68	68	68	68
3-Dec-01	***66***	66	66	68	68	68	68	68	70	70	70	70	70
4-Dec-01	68	70	70	70	70	70	70	72	72	72	72	72	72
5-Dec-01	70	70	70	70	70	70	70	70	70	70	72	72	72
6-Dec-01	68	68	70	70	70	72	70	70	70	72	72	72	72
7-Dec-01	***64***	68	68	68	70	70	70	70	72	72	72	72	72
8-Dec-01	68	68	68	68	68	70	70	70	70	70	70	70	70
9-Dec-01	68	70	70	70	70	70	70	70	70	70	70	70	70
10-Dec-01	66	68	68	68	70	70	70	70	70	70	70	70	70
11-Dec-01	68	70	70	70	70	70	70	70	70	70	70	70	70
12-Dec-01	***66***	68	68	68	68	68	68	68	68	68	70	70	70
13-Dec-01	***66***	66	68	68	68	68	68	68	68	68	68	68	68
14-Dec-01	***66***	68	68	68	68	68	68	68	68	68	68	68	68
15-Dec-01	***66***	***67***	***67***	68	68	68	68	68	68	68	68	68	68
16-Dec-01	***66***	68	68	68	68	68	68	68	68	68	68	68	68
17-Dec-01	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***
18-Dec-01	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	68	68	68	68
19-Dec-01	***64***	***64***	***64***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***	***66***

APPENDIX I - INHALATION EXPOSURE DATA (CONT'D)
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**
24-Nov-01	68	70	70	70	70	70	70	70	70	70	70	70	70
25-Nov-01	66	68	70	70	70	70	70	70	70	70	70	70	70
26-Nov-01	68	70	70	70	70	70	70	70	70	70	70	70	70
27-Nov-01	***62***	***64***	***66***	68	70	70	70	70	70	70	70	70	70
28-Nov-01	68	70	72	72	72	72	72	72	72	72	72	72	72
29-Nov-01	68	70	70	70	72	72	72	72	72	72	72	72	72
30-Nov-01	68	70	70	72	72	72	72	72	72	74	72	72	72
1-Dec-01	***67***	70	72	72	72	72	72	72	72	72	72	72	72
2-Dec-01	***66***	68	70	70	70	70	70	70	70	70	70	70	70
3-Dec-01	***64***	66	66	68	70	72	74	74	74	74	74	74	74
4-Dec-01	68	72	74	74	74	74	74	74	74	74	74	74	74
5-Dec-01	70	72	74	74	74	74	74	74	74	74	74	74	74
6-Dec-01	70	70	74	74	74	74	74	74	74	74	74	76	76
7-Dec-01	70	72	74	74	74	74	74	74	74	75	74	74	74
8-Dec-01	70	70	70	70	70	70	72	72	72	72	72	72	72
9-Dec-01	70	72	74	74	74	74	74	74	74	74	74	74	74
10-Dec-01	67	70	70	72	74	74	74	74	74	74	74	74	74
11-Dec-01	70	70	72	72	72	72	74	74	74	74	74	74	74
12-Dec-01	68	72	72	72	72	72	72	72	72	74	74	74	74
13-Dec-01	68	70	72	72	72	72	72	72	72	72	72	72	72
14-Dec-01	68	70	70	70	72	72	72	72	72	72	72	72	72
15-Dec-01	68	70	70	71	71	71	71	71	71	71	71	71	71
16-Dec-01	68	70	70	70	72	72	72	72	72	72	72	72	72
17-Dec-01	68	70	70	70	70	70	70	70	70	70	70	70	70
18-Dec-01	68	70	70	70	70	70	70	70	70	70	70	70	70
19-Dec-01	68	70	70	70	70	70	70	70	70	72	72	72	72

APPENDIX I - INHALATION EXPOSURE DATA (CONT'D)
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**
24-Nov-01	***64***	70	72	72	72	72	72	72	72	72	72	72	72
25-Nov-01	68	70	72	72	72	72	72	72	72	72	72	72	72
26-Nov-01	70	72	74	74	74	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***
27-Nov-01	68	72	74	74	76	76	***76***	***76***	***76***	***76***	***76***	***76***	***76***
28-Nov-01	70	74	74	76	76	76	***76***	***76***	***76***	***76***	***76***	***76***	***76***
29-Nov-01	68	70	74	74	76	75	75	75	75	***76***	***76***	***76***	***76***
30-Nov-01	70	72	74	74	74	76	76	***76***	***76***	***76***	***76***	***76***	***76***
1-Dec-01	68	72	72	76	76	76	76	***76***	***76***	***76***	***76***	***76***	***76***
2-Dec-01	70	72	72	72	72	72	72	72	72	72	72	72	72
3-Dec-01	68	70	72	72	74	74	74	74	76	***76***	***76***	***76***	***78***
4-Dec-01	70	74	***76***	***76***	***76***	***76***	***76***	***78***	***78***	***78***	***78***	***78***	***78***
5-Dec-01	72	76	***78***	***78***	***78***	***78***	***78***	***78***	***78***	***78***	***78***	***78***	***78***
6-Dec-01	72	74	***76***	***78***	***78***	***78***	***78***	***78***	***78***	***80***	***80***	***80***	***80***
7-Dec-01	70	74	75	***76***	***76***	***78***	***78***	***78***	***78***	***78***	***78***	***78***	***78***
8-Dec-01	71	74	74	74	74	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***
9-Dec-01	70	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***
10-Dec-01	68	74	74	74	***76***	***76***	***76***	***76***	***76***	***78***	***78***	***78***	***78***
11-Dec-01	70	74	76	76	***76***	***76***	***76***	***76***	***76***	***78***	***78***	***78***	***78***
12-Dec-01	68	72	74	74	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***	***76***
13-Dec-01	68	72	74	74	74	74	74	74	74	74	74	74	74
14-Dec-01	70	74	74	74	74	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***
15-Dec-01	68	71	74	74	74	74	74	74	74	74	74	74	74
16-Dec-01	68	72	72	74	74	74	***76***	***76***	***76***	***76***	***76***	***76***	***76***
17-Dec-01	70	72	74	74	74	74	74	***76***	***76***	***76***	***76***	***76***	***76***
18-Dec-01	70	72	74	74	74	74	74	74	76	***76***	***76***	***76***	***76***
19-Dec-01	68	72	74	74	74	74	74	74	74	74	74	74	74

APPENDIX I - INHALATION EXPOSURE DATA (CONT'D)
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**
24-Nov-01	***66***	68	68	69	69	69	69	69	69	69	69	69	69
25-Nov-01	***66***	68	68	68	68	68	68	68	68	68	68	68	68
26-Nov-01	***66***	68	70	70	70	70	70	70	70	70	70	70	70
27-Nov-01	***66***	68	70	70	70	72	72	72	72	72	72	72	72
28-Nov-01	68	70	70	72	72	72	72	72	72	72	72	72	72
29-Nov-01	66	68	70	70	72	72	72	72	72	72	72	72	72
30-Nov-01	68	68	70	70	70	70	72	72	72	72	72	72	72
1-Dec-01	***66***	***66***	68	70	70	70	70	70	70	70	70	70	70
2-Dec-01	68	70	70	70	70	70	70	70	70	70	70	70	70
3-Dec-01	***66***	***66***	***66***	68	70	72	72	72	72	72	72	72	74
4-Dec-01	68	72	72	72	74	74	74	74	74	74	74	74	74
5-Dec-01	70	72	74	74	74	74	74	74	74	74	74	74	74
6-Dec-01	69	71	72	73	74	74	74	74	74	74	74	74	74
7-Dec-01	68	70	72	74	74	74	74	74	74	74	74	74	74
8-Dec-01	70	71	72	72	72	73	73	73	73	73	73	73	73
9-Dec-01	68	72	74	74	74	74	74	74	74	74	74	74	74
10-Dec-01	***66***	70	72	72	72	74	74	74	74	74	74	74	74
11-Dec-01	68	70	72	72	72	72	74	74	74	74	74	74	74
12-Dec-01	68	70	70	72	72	72	72	72	72	72	72	72	72
13-Dec-01	***66***	68	70	70	70	70	72	72	72	72	72	72	72
14-Dec-01	68	70	70	70	70	70	72	72	72	72	72	72	72
15-Dec-01	***66***	68	70	70	70	70	70	70	70	70	70	70	70
16-Dec-01	***66***	68	68	70	70	70	70	70	72	72	72	72	72
17-Dec-01	***66***	68	70	70	70	70	70	70	70	70	70	70	70
18-Dec-01	68	68	69	70	70	70	70	70	70	70	70	70	70
19-Dec-01	***66***	68	68	68	68	70	70	70	70	70	70	70	70

APPENDIX I - INHALATION EXPOSURE DATA (CONT'D)
TABLE I-7 – CHAMBER TEMPERATURES AND HUMIDITIES
CHAMBER HUMIDITIES (%RH) - 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**
24-Nov-01	***66***	***66***	***66***	***66***	***66***	***62***	***62***	***62***	***62***	***62***	***62***	***62***	***62***
25-Nov-01	***80***	***80***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***
26-Nov-01	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***
27-Nov-01	***89***	***100***	***100***	***80***	***80***	***80***	***72***	***72***	***72***	***64***	***64***	***57***	***64***
28-Nov-01	***80***	***72***	***72***	***64***	***64***	***64***	***64***	***64***	***64***	57	57	57	57
29-Nov-01	***71***	***71***	***71***	***71***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
30-Nov-01	***71***	***64***	***64***	***72***	***72***	***64***	***64***	***72***	***72***	***72***	***64***	***64***	***64***
1-Dec-01	***71***	***71***	***71***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***
2-Dec-01	***62***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
3-Dec-01	***90***	***90***	***90***	***81***	***81***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***
4-Dec-01	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***65***	***65***	***65***	***65***	***65***	***65***
5-Dec-01	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***65***	***65***	***65***
6-Dec-01	***72***	***72***	***64***	***64***	***64***	***65***	***64***	***64***	***64***	***57***	***65***	***65***	***65***
7-Dec-01	***100***	***81***	***81***	***72***	***72***	***64***	***64***	***64***	57	57	57	57	57
8-Dec-01	***76***	***76***	***76***	***76***	***76***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***
9-Dec-01	***72***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
10-Dec-01	***71***	***62***	***62***	***62***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
11-Dec-01	***72***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
12-Dec-01	***71***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***64***	***64***	***64***
13-Dec-01	***71***	***71***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
14-Dec-01	***71***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
15-Dec-01	***71***	***67***	***67***	***67***	***67***	***67***	***67***	***67***	***67***	***67***	***67***	***67***	***67***
16-Dec-01	***71***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
17-Dec-01	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***
18-Dec-01	***62***	***62***	***62***	***62***	***62***	***62***	***62***	***62***	***71***	***64***	***64***	***64***	***64***
19-Dec-01	***80***	***80***	***80***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***	***71***

APPENDIX I - INHALATION EXPOSURE DATA (CONT'D)
TABLE I-7 – CHAMBER TEMPERATURES AND HUMIDITIES
CHAMBER HUMIDITIES (%RH) - 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**
24-Nov-01	51	56	56	48	48	48	48	48	48	48	48	48	48
25-Nov-01	***71***	***63***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
26-Nov-01	***63***	56	56	56	56	56	56	56	56	56	56	56	56
27-Nov-01	***89***	***100***	***90***	***81***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
28-Nov-01	***72***	***64***	57	57	57	57	65	65	65	57	57	57	57
29-Nov-01	***64***	56	56	56	57	57	57	57	57	57	57	57	57
30-Nov-01	***72***	***64***	***64***	57	***65***	57	***65***	***65***	***65***	***66***	***65***	***65***	***65***
1-Dec-01	***76***	***64***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***
2-Dec-01	***71***	***63***	56	56	56	56	56	56	56	56	56	56	56
3-Dec-01	***100***	***90***	***90***	***81***	***72***	***65***	58	58	58	58	58	58	58
4-Dec-01	***72***	***65***	58	58	58	58	58	58	58	58	58	58	58
5-Dec-01	***72***	***65***	58	58	58	58	58	58	58	58	58	58	58
6-Dec-01	***72***	***72***	58	58	58	58	58	58	58	58	58	52	52
7-Dec-01	***68***	***65***	58	58	58	58	58	58	58	55	58	58	58
8-Dec-01	***72***	***72***	***72***	***72***	***72***	***72***	***65***	***65***	***65***	***65***	***65***	***65***	***65***
9-Dec-01	***72***	***65***	58	58	58	58	58	58	58	58	58	58	58
10-Dec-01	***62***	***72***	***72***	***65***	58	58	58	58	58	58	58	58	58
11-Dec-01	***64***	***64***	57	57	57	***65***	58	58	58	58	58	58	58
12-Dec-01	***72***	***65***	*65*	*65*	*65*	*65*	*65*	*65*	*65*	58	58	58	58
13-Dec-01	***64***	***64***	57	57	57	57	57	57	57	57	57	57	57
14-Dec-01	***72***	***64***	***64***	***64***	57	57	57	57	57	57	57	57	57
15-Dec-01	***67***	***64***	***64***	***60***	60	60	60	60	60	60	60	60	60
16-Dec-01	***64***	***64***	***64***	***64***	57	57	57	57	57	57	57	57	57
17-Dec-01	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
18-Dec-01	***64***	57	57	57	57	57	***64***	***64***	***64***	***64***	***64***	***64***	***64***
19-Dec-01	***64***	57	57	57	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***

APPENDIX I - INHALATION EXPOSURE DATA (CONT'D)
TABLE I-7 – CHAMBER TEMPERATURES AND HUMIDITIES
CHAMBER HUMIDITIES (%RH) – 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**
24-Nov-01	***75***	60	57	57	57	57	57	57	57	57	57	57	57
25-Nov-01	***63***	56	57	57	57	57	57	57	57	57	57	57	57
26-Nov-01	***64***	57	51	58	58	58	52	52	52	52	52	52	52
27-Nov-01	***72***	57	58	58	52	52	52	52	52	52	52	52	52
28-Nov-01	***64***	58	58	52	59	59	59	59	59	52	52	52	52
29-Nov-01	***64***	*64*	51	51	52	55	55	55	55	52	52	52	52
30-Nov-01	***68***	*65*	***62***	***62***	***62***	52	52	52	52	67	59	59	59
1-Dec-01	***72***	*65*	***65***	59	59	59	59	59	59	59	59	59	59
2-Dec-01	***64***	57	57	57	57	57	57	57	57	57	57	57	57
3-Dec-01	***81***	***81***	***73***	***73***	***66***	***66***	***66***	***66***	59	59	59	59	53
4-Dec-01	***64***	***62***	59	59	59	59	59	53	53	53	53	53	53
5-Dec-01	***65***	59	53	53	53	53	53	53	53	53	53	53	53
6-Dec-01	***69***	***66***	59	53	53	53	53	53	53	48	48	48	48
7-Dec-01	***68***	58	55	56	59	53	53	53	53	53	53	53	53
8-Dec-01	***69***	***62***	***62***	***62***	***62***	***62***	59	59	59	59	59	59	59
9-Dec-01	***72***	58	***62***	***62***	***62***	***62***	***62***	***62***	***62***	***62***	***62***	***62***	***62***
10-Dec-01	***64***	58	58	58	59	59	59	59	59	53	53	53	53
11-Dec-01	***64***	58	52	52	59	59	59	59	59	53	53	53	53
12-Dec-01	***72***	***65***	58	58	58	52	52	52	52	52	52	52	52
13-Dec-01	***64***	57	58	58	58	58	58	58	58	58	58	58	58
14-Dec-01	***64***	51	58	58	58	58	52	52	52	52	52	52	52
15-Dec-01	***72***	***64***	58	58	58	58	58	58	58	58	58	58	58
16-Dec-01	***72***	***65***	65	58	58	58	52	52	52	52	52	52	52
17-Dec-01	***64***	***65***	58	58	58	58	58	52	52	52	52	52	52
18-Dec-01	***57***	57	51	54	54	58	58	58	52	52	52	52	52
19-Dec-01	***64***	57	51	58	58	58	58	58	58	58	58	58	58

APPENDIX I - INHALATION EXPOSURE DATA (CONT'D)
TABLE I-7 – CHAMBER TEMPERATURES AND HUMIDITIES
CHAMBER HUMIDITIES (%RH) – 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**
24-Nov-01	***71***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
25-Nov-01	***71***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***
26-Nov-01	***62***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
27-Nov-01	***71***	***72***	***64***	***64***	***64***	57	57	57	57	57	57	57	57
28-Nov-01	***72***	***64***	***72***	***65***	***65***	65	65	65	65	57	57	57	57
29-Nov-01	***71***	***72***	***64***	***64***	57	57	57	57	57	57	57	57	57
30-Nov-01	***72***	***72***	***68***	***68***	***68***	***72***	***65***	***65***	***65***	***73***	***65***	***65***	***65***
1-Dec-01	***71***	***71***	***63***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***	***72***
2-Dec-01	***63***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
3-Dec-01	***90***	***90***	***90***	***81***	***72***	***65***	***65***	***65***	***65***	***65***	***65***	***65***	***58***
4-Dec-01	***63***	***65***	***65***	***65***	58	58	***66***	58	58	58	73	58	58
5-Dec-01	***64***	***73***	***66***	***58***	58	66	***66***	66	58	58	58	58	58
6-Dec-01	***68***	***69***	***65***	***61***	58	58	58	58	58	58	66	58	58
7-Dec-01	***72***	***72***	***65***	***58***	58	58	58	58	58	58	58	58	58
8-Dec-01	***68***	***69***	***65***	***65***	***65***	***62***	***62***	***62***	***62***	***62***	***62***	***62***	***62***
9-Dec-01	***72***	***65***	***62***	***62***	***62***	***62***	***62***	***62***	***62***	***62***	***62***	***62***	***62***
10-Dec-01	***71***	***72***	***65***	***65***	***65***	58	58	58	58	58	58	58	58
11-Dec-01	***64***	***72***	***65***	***65***	***65***	***65***	58	58	58	58	58	58	58
12-Dec-01	***72***	***72***	***72***	***65***	***65***	***65***	***65***	***65***	***65***	***65***	***65***	***65***	***65***
13-Dec-01	***71***	***72***	***64***	***64***	***64***	*64*	57	57	57	57	57	57	57
14-Dec-01	***72***	***64***	***64***	***64***	***64***	*64*	57	57	57	57	57	57	57
15-Dec-01	***71***	***72***	***68***	***68***	***68***	***68***	***68***	***68***	***68***	***68***	***68***	***68***	***68***
16-Dec-01	***71***	***72***	***72***	***64***	***64***	***64***	***64***	***64***	57	57	57	57	57
17-Dec-01	***71***	***72***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
18-Dec-01	***64***	***64***	***60***	***60***	***60***	***60***	***64***	***64***	***64***	***64***	***64***	***64***	***64***
19-Dec-01	***71***	***64***	***64***	***64***	***72***	***64***	***64***	***64***	***64***	***64***	***64***	***64***	***64***

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

Technical literature indicates that ethanol, the oxygenate in MRD-00-714, is not quantitatively desorbed with carbon disulfide (CS_2) which is the solvent typically used to desorb hydrocarbons from charcoal. Therefore, the desorption efficiency of a number of solvent mixtures were evaluated for the extraction of ethanol spiked onto jumbo (800/200mg) charcoal tubes. The mixture of 10% 2-propanol in CS_2 was determined to quantitatively desorb ethanol with an efficiency of 99.1% and did not interfere with any of the target hydrocarbon compounds.

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 10% 2-propanol in carbon disulfide (CS_2) for at least 60 minutes (with occasional shaking). Aliquots were then analyzed by GC-FID.

STANDARDIZATION

A standard mixture was prepared in (CS_2) containing each of the 18 target hydrocarbons plus Ethanol 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-00-714 (gasoline vapor condensate with ETOH) 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-00-714 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)	225°C (split injection 20:1)
Injection Volume	0.2µL or 0.5µL*
Analytical Column	Supleco Petrocol DH 150 fused silica capillary column (150m x 0.25mm; 1.0µm film thickness)
Oven Temperature Program	35°C (hold 130 minutes); ramp @ 2°C/minute to 200°C
Data Collection	Perkin Elmer Nelson Turbochrom (TC4) version 4.1
Carrier Gas Program	65 psi (He)

*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 Ethanol oxygenate. The results are listed in Table J-1 and show that the concentration of the components was consistent throughout the course of the study.

Analysis of the 20,000 mg/m^3 (high) exposure level sample taken during study Week 3 (10 December 01) detected significant amounts of several of the target hydrocarbons on the back portion of the sorbent tube indicating significant sampling breakthrough had occurred. Therefore no results are reported for this sample.

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Analytical Chemist

6 Nov 2008
Date

APPENDIX J- ANALYTICAL CHEMISTRY REPORT

TABLE J - 1

CHAMBER CHARACTERIZATION - SORBENT TUBES HYDROCARBON DISTRIBUTION

Sample Date	27-Nov-01			3-Dec-01			10-Dec-01			17-Dec-01		
Inhalation ID	1	2	3	4	5	6	7	8	9*	10	11	12
	target mg/m^3			target mg/m^3			target mg/m^3			target mg/m^3		
	2000	10,000	20,000	2000	10,000	20,000	2000[a]	10,000	*20,000*	2000	10,000	20,000
Compound	*RESULTS ARE in "AREA %" of TARGET HYDROCARBONS*											
isobutane	2.2	2.1	1.9	2.4	2.4	2.2	2.5	2.4		2.2	2.1	2.3
n-butane	11.6	11.3	10.6	12.2	12.2	11.8	12.5	12.2		11.8	11.5	11.8
Ethanol	8.2	9.6	9.8	7.9	9.0	9.2	8.4	9.2		9.0	9.7	9.9
isopentane	35.8	35.7	35.8	35.6	35.8	35.9	36.0	35.9	*Results*	35.5	35.5	35.7
n-pentane	10.8	10.8	10.8	10.6	10.7	10.7	10.7	10.7		10.7	10.7	10.7
trans-2-pentene	2.3	2.2	2.4	2.2	2.3	2.3	2.2	2.3	*not*	2.2	2.3	2.3
2-methyl-2-butene	3.3	3.3	3.4	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3
2,3-dimethylbutane	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7	*reported*	1.7	1.7	1.7
2-methylpentane	5.1	5.1	5.1	4.9	5.0	5.0	4.9	4.9		5.0	5.0	4.9
3-methylpentane	3.2	3.1	3.3	3.2	3.1	3.1	3.0	3.1	*due*	3.1	3.1	3.1
n-hexane	2.7	2.7	2.7	2.6	2.6	2.6	2.5	2.6		2.6	2.6	2.6
methylcyclopentane	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3	*to*	1.4	1.3	1.3
2,4-dimethylpentane	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.1		1.2	1.2	1.1
benzene	2.0	1.8	1.8	2.0	1.7	1.7	1.9	1.7	*break-*	2.0	1.8	1.7
2-methylhexane	1.3	1.3	1.3	1.3	1.2	1.3	1.2	1.2		1.3	1.2	1.2
2,3-dimethylpentane	1.5	1.4	1.4	1.3	1.3	1.3	1.4	1.4	*through*	1.3	1.3	1.4
3-methylhexane	1.5	1.6	1.5	1.5	1.5	1.5	1.6	1.4		1.5	1.6	1.5
isooctane	1.7	1.7	1.7	1.6	1.6	1.6	1.4	1.6		1.7	1.7	1.6
toluene	2.6	2.3	2.3	2.9	2.2	2.3	2.3	2.2		2.5	2.5	2.1
Sum	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 except on sample 9 (20,000 mg/m3, 10-Dec-01)

a- 2-methyl-2-butene and 2,4-dimethylpentane detected on back section of tube. Sample reinjected

APPENDIX K – STATISTICANS REPORT

Analysis Of Fetal Data From A Whole-Body Inhalation Developmental Toxicity Study in Rats with Gasoline with Ethanol Vapor Condensate (MRD-00-714)

This report details the statistical analysis of fetal body weight and anomaly data from ExxonMobil Biomedical Sciences Study 171434. The study was conducted to evaluate the potential developmental toxicity of Gasoline with Ethanol Vapor Condensate (GEVC). GEVC was administered via whole-body inhalation exposure to pregnant rats during the period of major organogenesis and fetal growth. GEVC was administered by whole-body inhalation exposure to 25 confirmed-mated Crl: CD®(SD)IGS BR female rats at target exposure levels 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 allows comparisons that account for differences in litter size and sex. The mathematical model is based on a paper by Chen, et al (1996). The analysis was run using SAS with code suggested in Little, et al (1997).

The analysis of anomalies (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
Combined Malformations and Variations for Alive Fetuses
Combined Malformations and Variations for Dead Fetuses
Malformations for All Fetuses
Malformations for Alive Fetuses
Malformations for Dead Fetuses
Variations for All Fetuses
Variations for Alive Fetuses
Variations for Dead Fetuses

In some cases there were no dead fetuses in a category.

APPENDIX K – STATISTICANS REPORT (CONT'D)

Table I lists the three categories and corresponding sub-categories. Within each category several subcategories were combined into a group of similar anomalies. For example in the Category Skeletal the separate sub-categories of "SKELETAL/ STERNEBRAE: Hypoplastic sternebrae" and "SKELETAL/STERNEBRAE (V): Unossified" were combined into a sub-category "SKELETAL/STERNEBRAE: Delayed ossification of sternebrae". 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 I by the sub-category number. The analyses were run using SAS.

Table I
Malformation Categories and Corresponding Sub-categories

Category	**Number**	**Sub-Category and Classification**	**Sub-categories combined**
Head	1	HEAD: Misshapen olfactory bulb ***M***	
	2	HEAD: Raised area located subcutaneously on right side of head in sections 3-5 ***V***	
External	1	EXTERNAL: Misshapen head ***M***	
	2	EXTERNAL: Malrotated paw ***M***	
Abdomen/Thorax	1	ABDOMEN/THORAX: Fluid-filled abdomen (red) ***V***	
	2	ABDOMEN/THORAX: Hydronephrosis ***M***	
	3	ABDOMEN/THORAX: Hydroureter ***M***	
	4	ABDOMEN/THORAX: Liver discolored tan and dark red ***O***	
	5	ABDOMEN/THORAX: Renal artery aneurysm; Left ***M***	
	6	ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder ***V***	
	7	ABDOMEN/THORAX: Kidney discolored white; Bilateral ***O***	
	8	ABDOMEN/THORAX: Lungs discolored white ***O***	
Skeletal	1	SKELETAL/RIBS (T13): Short last rib; Right ***V***	
	2	SKELETAL/RIBS: Rudimentary supernumary ribs ***V***	
	3	SKELETAL/STERNEBRAE (V): Unossified ***V***	
	4	SKELETAL/STERNEBRAE: Hypoplastic sternebrae ***V***	
	5	SKELETAL/VERTEBRAE (T5 Anlage): Malformed centra ***M***	
	6	SKELETAL/VERTEBRAE (T5): Malformed centra ***M***	
	7	SKELETAL/VERTEBRAE (T5,6 Anlage): Misshapen centra ***V***	
	8	SKELETAL/VERTEBRAE (T9): Dumbbell centra ***V***	
	9	SKELETAL/VERTEBRAE: Bifid vertebral centra ***V***	
	10	SKELETAL/VERTEBRAE: Bifid vertebral centra anlage ***V***	
	11	SKELETAL/VERTEBRAE: Dumbell-shaped vertebral centra anlage ***V***	
	12	SKELETAL/STERNEBRAE: Delayed ossification of sternebrae ***V***	3, 4
	13	SKELETAL/VERTEBRAE: Hypoplastic vertebral centra ***V***	8, 9
	14	SKELETAL/VERTEBRAE: Hypoplastic vertebral centra anlage ***V***	10, 11

Key to classifications at thend of the sub-categories: ***V*** = Variation, ***M*** = Malformation, and ***O*** = unclassified observation

APPENDIX K – STATISTICANS REPORT (CONT'D)

RESULTS:

BODY WEIGHT ANALYSIS

There was no statistically significant difference in the mean fetal litter weights among the exposure groups. Table II shows the mean fetal weight, the least squares mean fetal weight. The exposure and exposure by sex interaction were not statistically significant indicating there was not a exposure related effect.

Table II
Mean fetal weight, the 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	389	5.48	5.48
2,000	22	341	5.43	5.43
10,000	24	354	5.32	5.31
20,000	24	365	5.35	5.37

*The least squares mean accounts for litter size.

ANOMALY ANALYSES

The count of total skeletal combinations indicated a statistically significant difference among the groups. Total skeletal combinations is a variable that combines all skeletal anomalies observed in this study. The number of fetuses affected in the mid exposure group was greater than in the control group ($p<0.05$). The summary data are shown in Table III.

Table III
Number of Affected Fetuses for the Skeletal Combined Measure

Exposure	**Dams Examined**	**Fetuses Examined**	**Dams Affected**	**Fetuses Affected**	**% Fetuses Affected to Examined**
0 mg/m^3	25	194	15	30	15.5
2,000 mg/m^3	22	173	12	20	11.6
10,000 mg/m^3	24	178	21	44	24.7
20,000 mg/m^3	24	184	15	25	13.6

APPENDIX K – STATISTICANS REPORT (CONT'D)

CONCLUSION:
Based on these findings, administration of the test substance at the exposures tested is not associated with any change of litter fetal body weight. There was a statistically significant increase in the combined skeletal anomalies in the mid- exposure group but there was not a exposure related response; examination of Table III shows the low and high exposure groups had relatively fewer skeletal malformations than the control group. The skeletal finding is considered a result of multiple testing and is not considered a biological finding.

8 OCT 2008

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References:

Chen, Gaylor, and Laborde, "Dose-response modeling of growth for developmental toxicity", Environmetrics, vol 7, pg 135-144, 1996.

Little, Milliken, Stroup, and Wolfinger, "SAS System for Mixed Models", SAS Institute, Cary, NC, 1997, section 5.6.2, pg 203.

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 K – STATISTICANS REPORT (CONT'D)

APPENDIX
Anomaly Counts
Study # 171434

Head Variations and Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	1	1
2000 MG/M3	22	169	0	0
10000 MG/M3	24	176	1	1
20000 MG/M3	24	182	0	0

Head Variations and Malformations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	1	1
2000 MG/M3	22	169	0	0
10000 MG/M3	24	176	1	1
20000 MG/M3	24	181	0	0

Head Variations and Malformations - combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
20000 MG/M3	1	1	0	0

Head Variations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	0	0
10000 MG/M3	24	176	1	1
20000 MG/M3	24	182	0	0

APPENDIX K – STATISTICANS REPORT (CONT'D)

Head Variations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	0	0
10000 MG/M3	24	176	1	1
20000 MG/M3	24	181	0	0

Head Variations - combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
20000 MG/M3	1	1	0	0

Head Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	1	1
2000 MG/M3	22	169	0	0
10000 MG/M3	24	176	0	0
20000 MG/M3	24	182	0	0

Head Malformations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	1	1
2000 MG/M3	22	169	0	0
10000 MG/M3	24	176	0	0
20000 MG/M3	24	181	0	0

APPENDIX K – STATISTICANS REPORT (CONT'D)

Head Malformations - combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
20000 MG/M3	1	1	0	0

head - individual
HEAD: Misshapen olfactory bulb

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	1	1
2000 MG/M3	22	169	0	0
10000 MG/M3	24	176	0	0
20000 MG/M3	24	182	0	0

head - individual
HEAD: Raised area located subcutaneously on right side of head in sections 3-5.

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	0	0
10000 MG/M3	24	176	1	1
20000 MG/M3	24	182	0	0

External Variations and Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	389	1	1
2000 MG/M3	22	342	0	0
10000 MG/M3	24	354	2	2
20000 MG/M3	24	366	1	1

APPENDIX K – STATISTICANS REPORT (CONT'D)

External Variations and Malformations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	389	1	1
2000 MG/M3	22	342	0	0
10000 MG/M3	24	354	2	2
20000 MG/M3	24	365	1	1

External Variations and Malformations - combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
20000 MG/M3	1	1	0	0

External Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	389	1	1
2000 MG/M3	22	342	0	0
10000 MG/M3	24	354	2	2
20000 MG/M3	24	366	1	1

External Malformations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	389	1	1
2000 MG/M3	22	342	0	0
10000 MG/M3	24	354	2	2
20000 MG/M3	24	365	1	1

APPENDIX K – STATISTICANS REPORT (CONT'D)

External Malformations - combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
20000 MG/M3	1	1	0	0

external - individual
EXTERNAL: Misshapen head

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	389	0	0
2000 MG/M3	22	342	0	0
10000 MG/M3	24	354	0	0
20000 MG/M3	24	366	1	1

Visceral Variations and Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	2	2
10000 MG/M3	24	176	3	3
20000 MG/M3	24	182	2	2

Visceral Variations and Malformations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	2	2
10000 MG/M3	24	176	3	3
20000 MG/M3	24	181	2	2

APPENDIX K – STATISTICANS REPORT (CONT'D)

Visceral Variations and Malformations - combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
20000 MG/M3	1	1	0	0

Visceral Variations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	1	1
10000 MG/M3	24	176	1	1
20000 MG/M3	24	182	0	0

Visceral Variations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	1	1
10000 MG/M3	24	176	1	1
20000 MG/M3	24	181	0	0

Visceral Variations - combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
20000 MG/M3	1	1	0	0

APPENDIX K – STATISTICANS REPORT (CONT'D)

Visceral Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	1	1
10000 MG/M3	24	176	2	2
20000 MG/M3	24	182	2	2

Visceral Malformations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	1	1
10000 MG/M3	24	176	2	2
20000 MG/M3	24	181	2	2

Visceral Malformations - combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
20000 MG/M3	1	1	0	0

visceral - individual
ABDOMEN/THORAX: Fluid-filled abdomen (red)

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	0	0
10000 MG/M3	24	176	1	1
20000 MG/M3	24	182	0	0

APPENDIX K – STATISTICANS REPORT (CONT'D)

visceral - individual
ABDOMEN/THORAX: Hydronephrosis

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	0	0
10000 MG/M3	24	176	1	1
20000 MG/M3	24	182	2	2

visceral - individual
ABDOMEN/THORAX: Hydroureter

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	0	0
10000 MG/M3	24	176	1	1
20000 MG/M3	24	182	1	1

visceral - individual
ABDOMEN/THORAX: Liver discolored tan and dark red

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	0	0
10000 MG/M3	24	176	1	1
20000 MG/M3	24	182	0	0

visceral - individual
ABDOMEN/THORAX: Renal artery aneurysm; Left

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	195	0	0
2000 MG/M3	22	169	1	1
10000 MG/M3	24	176	0	0
20000 MG/M3	24	182	0	0

APPENDIX K – STATISTICANS REPORT (CONT'D)

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	195	0	0
2000 MG/M3	22	169	1	1
10000 MG/M3	24	176	0	0
20000 MG/M3	24	182	0	0

Skeletal Variations and Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	15	30
2000 MG/M3	22	173	12	20
10000 MG/M3	24	178	21	44
20000 MG/M3	24	184	15	25

Skeletal Variations and Malformations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	15	30
2000 MG/M3	22	173	12	20
10000 MG/M3	24	178	21	44
20000 MG/M3	24	184	15	25

Skeletal Variations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	15	30
2000 MG/M3	22	173	12	20
10000 MG/M3	24	178	21	44
20000 MG/M3	24	184	15	24

APPENDIX K – STATISTICANS REPORT (CONT'D)

Skeletal Variations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	15	30
2000 MG/M3	22	173	12	20
10000 MG/M3	24	178	21	44
20000 MG/M3	24	184	15	24

Skeletal Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	0	0
2000 MG/M3	22	173	0	0
10000 MG/M3	24	178	0	0
20000 MG/M3	24	184	1	1

Skeletal Malformations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	0	0
2000 MG/M3	22	173	0	0
10000 MG/M3	24	178	0	0
20000 MG/M3	24	184	1	1

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

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	0	0
2000 MG/M3	22	173	1	1
10000 MG/M3	24	178	0	0
20000 MG/M3	24	184	1	1

APPENDIX K – STATISTICANS REPORT (CONT'D)

skeletal - individual
SKELETAL/RIBS: Rudimentary supernumary ribs

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	6	8
2000 MG/M3	22	173	2	2
10000 MG/M3	24	178	6	7
20000 MG/M3	24	184	3	4

skeletal - individual
SKELETAL/STERNEBRAE (V): Unossified

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	0	0
2000 MG/M3	22	173	1	1
10000 MG/M3	24	178	0	0
20000 MG/M3	24	184	1	1

skeletal - individual
SKELETAL/STERNEBRAE: Hypoplastic sternebrae

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	1	2
2000 MG/M3	22	173	0	0
10000 MG/M3	24	178	2	2
20000 MG/M3	24	184	1	1

skeletal - individual
SKELETAL/VERTEBRAE (T5 Anlage): Malformed centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	0	0
2000 MG/M3	22	173	0	0
10000 MG/M3	24	178	0	0
20000 MG/M3	24	184	1	1

APPENDIX K – STATISTICANS REPORT (CONT'D)

skeletal - individual
SKELETAL/VERTEBRAE (T5): Malformed centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	0	0
2000 MG/M3	22	173	0	0
10000 MG/M3	24	178	0	0
20000 MG/M3	24	184	1	1

skeletal - individual
SKELETAL/VERTEBRAE (T5,6 Anlage): Misshapen centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	0	0
2000 MG/M3	22	173	0	0
10000 MG/M3	24	178	1	1
20000 MG/M3	24	184	0	0

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

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	1	1
2000 MG/M3	22	173	0	0
10000 MG/M3	24	178	0	0
20000 MG/M3	24	184	0	0

skeletal - individual
SKELETAL/VERTEBRAE: Bifid vertebral centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	12	21
2000 MG/M3	22	173	8	16
10000 MG/M3	24	178	19	33
20000 MG/M3	24	184	11	17

APPENDIX K – STATISTICANS REPORT (CONT'D)

skeletal - individual
SKELETAL/VERTEBRAE: Bifid vertebral centra anlage[a]

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	0	0
2000 MG/M3	22	173	0	0
10000 MG/M3	24	178	1	2
20000 MG/M3	24	184	0	0

a – Statistical analyses could not be performed. It appears that a model could not be created for the analyses.

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

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	3	3
2000 MG/M3	22	173	2	2
10000 MG/M3	24	178	5	5
20000 MG/M3	24	184	5	5

skeletal - combined
SKELETAL/STERNEBRAE: Delayed ossification of sternebrae

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	1	2
2000 MG/M3	22	173	1	1
10000 MG/M3	24	178	2	2
20000 MG/M3	24	184	2	2

skeletal - combined
SKELETAL/VERTEBRAE: Hypoplastic vertebral centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	12	22
2000 MG/M3	22	173	8	16
10000 MG/M3	24	178	19	33
20000 MG/M3	24	184	11	17

APPENDIX K – STATISTICANS REPORT (CONT'D)

skeletal - combined
SKELETAL/VERTEBRAE: Hypoplastic vertebral centra anlage

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	25	194	3	3
2000 MG/M3	22	173	2	2
10000 MG/M3	24	178	6	7
20000 MG/M3	24	184	5	5

APPENDIX L - HISTORICAL CONTROL DATA

SUPPLIER: Charles River Laboratories, Inc.

FEED: PMI Certified Rodent Chow (5002 Meal)

STUDY NUMBER	STUDY DATES	SUPPLIER LOCATION/AREA	SPECIES/STRAIN	TESTING FACILITY LOCATION	DOSING ROUTE/CARRIER
9 (A,B)	May 9, 2000 - June 2, 2000	Raleigh, NC/R04	Crl:CD®(SD)IGSBR VAF/Plus	Annandale, NJ	Oral/Corn Oil
10	May 19, 2001 - June 15, 2001	Raleigh, NC/R04	Crl:CD®(SD)IGSBR VAF/Plus	Annandale, NJ	Inhalation/Air
11	August 19, 2001 - September 18, 2001	Raleigh, NC/R04	Crl:CD®(SD)IGSBR VAF/Plus	Annandale, NJ	Inhalation/Air

APPENDIX L - HISTORICAL CONTROL DATA
(UTERINE IMPLANTATION DATA)

	LIVE	MALE	FEMALE	RESORPTIONS	IMPLANTS	CORPORA LUTEA	DEAD	FETUS/ IMPLANTS	RESORPTIONS/ IMPLANTS	F/I TRANSFORMED
HIGH	16.14	9.29	8.43	1.71	16.86	19.43	0	0.97	0.10	79.840760
LOW	13.48	6.20	6.71	0.44	14.52	15.26	0	0.90	0.03	78.114083
STUDY #										
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	11.70	10.30	0.26	1.60	1.70
LOW	10.159600	7.103	0	2.50	2.80	0	0	0.50
STUDY #								
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	5.30	5.00
STUDY #	[redacted]	
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 - % Affected)

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

STUDY #	11	10	9(B)	9(A)
% VIS. VAR. - F	0	0	0	1.00
% VIS. VAR. - L	0	0	0	4.00
% VIS. MAL. - F	2.21	1.69	1.02	0.50
% VIS. MAL. - L	16.67	12.50	4.00	4.00
Microphthalmia - F			0.51	
Microphthalmia - L			4.00	
Retinal fold - F		1.12		
Retinal fold - L		8.33		
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

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

APPENDIX L - HISTORICAL CONTROL DATA
(SKELETAL DATA- % Affected)

STUDY #	11	10	9(B)	9(A)
% SKEL. VAR. - F	15.25	8.84	$	$
% SKEL. VAR. - L	54.17	50.00	$	$
% SKEL. MAL. - F	1.13	0	$	$
% SKEL. MAL. - L	8.33	0	$	$
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	6.78	1.10		
Vertebral centra: Bifid- L	29.17	8.33		
Vertebral centra: Dumbbell/8-shaped - F		1.10		
Vertebral centra: Dumbbell/8-shaped - L		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: 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): Rudimentary lumbar - F	1.70	5.52		
Rib(s): Rudimentary lumbar - L	12.50	25.00		

APPENDIX L - HISTORICAL CONTROL DATA
(SKELETAL DATA- % Affected)

STUDY #	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			

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

APPENDIX M – FEED AND WATER ANALYSES

LabDiet PMI NUTRITION INTERNATIONAL

Product Code: 5002M
Product Desc: CERTIFIED RODENT DIET MEAL
Lab Number: L0120470-2
Lot Code: JUL 09 01 3B
Entered: 7/11/2001

Assay	Analysis	Units
PROTEIN	21.3	%
FAT (ACID HYDRO.)	5.67	%
FIBER (CRUDE)	4.57	%
ARSENIC	0.435	PPM
CADMIUM	0.059	PPM
CALCIUM	0.930	%
LEAD	0.162	PPM
MERCURY	LESS THAN 0.025	PPM
PHOSPHORUS	0.742	%
SELENIUM	0.297	PPM

ORGANOPHOSPHATES	PPM	ORGANOPHOSPHATES	PPM
Diazinon	LESS THAN 0.02	Disulfoton	LESS THAN 0.02
Ethion	LESS THAN 0.02	Malathion	LESS THAN 0.02
Methyl Parathion	LESS THAN 0.02	Parathion	LESS THAN 0.02
Thimet	LESS THAN 0.02	Thiodan	LESS THAN 0.02
Trithion	LESS THAN 0.02		

PESTICIDES AND PCB	PPM	PESTICIDES AND PCB	PPM
Aldrin	LESS THAN 0.02	Alpha-BHC	LESS THAN 0.02
Beta-BHC	LESS THAN 0.02	Chlordane	LESS THAN 0.02
DDE	LESS THAN 0.02	DDT	LESS THAN 0.02
Delta-BHC	LESS THAN 0.02	Dieldrin	LESS THAN 0.02
Endrin	LESS THAN 0.02	HCB	LESS THAN 0.02
Heptachlor	LESS THAN 0.02	Heptachlor Epoxide	LESS THAN 0.02
Lindane	LESS THAN 0.02	Methoxychlor	LESS THAN 0.02
Mirex	LESS THAN 0.02	PCB	LESS THAN 0.15

AFLATOXINS	Aflatoxins	LESS THAN 5 PPB	

No notes.
For additional information, please contact:
1) Customer Service at (314) 982-1310 -- for assay methodology
2) Dr. Dorrance Haught at (314) 317-5178 -- for nutritional interpretation
3) Richmond, IN Manufacturing Plant at (765) 962-9561 -- all other questions

The term "Less Than" is used to signify the lower limit of quantitation of the procedure under the conditions employed.
The use of the term "Less Than" does not imply that traces of analyte were present.

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

LabDiet PMI NUTRITION INTERNATIONAL

Product Code: 5002M
Product Desc: CERTIFIED RODENT DIET MEAL
Lab Number: L0121626-4
Lot Code: AUG 01 01 3B
Entered: 8/1/2001

Assay	Analysis	Units
PROTEIN	21	%
FAT (ACID HYDRO.)	5.84	%
FIBER (CRUDE)	4.33	%
ARSENIC	LESS THAN 0.2	PPM
CADMIUM	0.066	PPM
CALCIUM	0.996	%
LEAD	0.156	PPM
MERCURY	LESS THAN 0.025	PPM
PHOSPHORUS	0.718	%
SELENIUM	0.321	PPM

ORGANOPHOSPHATES	PPM	ORGANOPHOSPHATES	PPM
Diazinon	LESS THAN 0.02	Disulfoton	LESS THAN 0.02
Ethion	LESS THAN 0.02	Malathion	0.03
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)

ExxonMobil Biomedical Sciences, Inc.

Memorandum

To PE Wing Vivarium Animal Water Supply Analysis Files
Re Sample Date May 22, 2001
From R. C. Forgash
Date July 9, 2001

The results of the PE wing vivarium animal water supply analysis from the sample collected on 22-May-01 revealed no contaminant levels above the maximum contaminant levels (MCL). The only noteworthy results were those listed below.

	Result	MCL
Methylene chloride	1.2 µg/l	3.0 µg/l
1, 1, 1-Trichloroethane	1.0 µg/l	30 µg/l
Calcium	49.6 mg/l	*
Copper	0.097 mg/l	1.3 mg/l
Magnesium	26.7 mg/l	*
Zinc	0.040 mg/l	5.0 mg/l

* No MCL

All reported values for this water analysis are judged acceptable.

Methylene chloride is a solvent commonly used in an analytical chemistry laboratory. The lab that performed our analysis was contacted to inquire if the methylene chloride seen in our results could be a contaminant from their lab. Their response was that it is possible since they use methylene chloride in many of their analyses. I asked if it was possible to re-analyze the EMBSI water sample and was informed that this was not possible.

On June 15, 2001 the Mammalian Vivarium animal water source was changed over to the site reverse osmosis water supply, however in order to clarify the methylene chloride issue the former animal water source will be re-sampled and analyzed for methylene chloride.

Resampled + Analyzed for Methylene Chlorides
Results: None Detected

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
Method:	EPA 624	**Percent Solids:**	n/a
Project:	Lab Animal Room Water		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T20546.D	1	05/26/01	YYL	n/a	n/a	VT649
Run #2							

VOA PPL List

CAS No.	Compound	Result	MCL	RL	Units	Q
107-02-8	Acrolein	ND		6.6	ug/l	
107-13-1	Acrylonitrile	ND		4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND		0.19	ug/l	
75-25-2	Bromoform	ND		0.53	ug/l	
74-83-9	Bromomethane	ND		0.72	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.67	ug/l	
108-90-7	Chlorobenzene	ND	50	0.31	ug/l	
75-00-3	Chloroethane	ND		0.86	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND		0.60	ug/l	
67-66-3	Chloroform	ND		0.60	ug/l	
74-87-3	Chloromethane	ND		1.0	ug/l	
124-48-1	Dibromochloromethane	ND		0.28	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	600	0.58	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	600	0.66	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	75	0.70	ug/l	
75-71-8	Dichlorodifluoromethane	ND		1.1	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	0.55	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.75	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	0.69	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	70	0.89	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	100	0.89	ug/l	
78-87-5	1,2-Dichloropropane	ND	5.0	0.29	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND		0.55	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.60	ug/l	
100-41-4	Ethylbenzene	ND	700	0.60	ug/l	
1634-04-4	**Methyl Tert Butyl Ether**	ND	70	0.26	ug/l	
75-09-2	Methylene chloride	1.2	3.0	0.39	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.91	ug/l	
108-88-3	Toluene	ND	1000	0.62	ug/l	
71-55-6	1,1,1-Trichloroethane	1.0	30	0.78	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	3.0	0.59	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND		1.3	ug/l	
75-01-4	Vinyl chloride	ND	2.0	1.3	ug/l	

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ND = Not detected
MCL = Maximum Contamination Level (NJAC 7:10-1 11/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
Method:	EPA 624	**Percent Solids:**	n/a
Project:	Lab Animal Room Water		

VOA PPL List

CAS No.	Compound	Result	MCL	RL	Units	Q
1330-20-7	Xylenes (total)	ND	1000	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	105%		73-127%
2037-26-5	Toluene-D8 (SUR)	102%		88-111%
460-00-4	4-Bromofluorobenzene (SUR)	94%		75-114%

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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)

Accutest Laboratories

Report of Analysis

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
Method:	EPA 625 EPA 625	**Percent Solids:**	n/a
Project:	Lab Animal Room Water		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M15002.D	1	06/02/01	CBD	05/27/01	OP9476	EM440
Run #2							

ABN AP9 special List

CAS No.	Compound	Result	MCL	RL	Units	Q
95-57-8	2-Chlorophenol	ND		1.4	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND		0.99	ug/l	
120-83-2	2,4-Dichlorophenol	ND		1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND		1.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND		1.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND		1.2	ug/l	
88-75-5	2-Nitrophenol	ND		1.5	ug/l	
100-02-7	4-Nitrophenol	ND		1.7	ug/l	
87-86-5	Pentachlorophenol	ND	1.0	3.8	ug/l	
108-95-2	Phenol	ND		0.64	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND		1.7	ug/l	
83-32-9	Acenaphthene	ND		0.20	ug/l	
208-96-8	Acenaphthylene	ND		0.22	ug/l	
120-12-7	Anthracene	ND		0.10	ug/l	
92-87-5	Benzidine	ND		20	ug/l	
56-55-3	Benzo(a)anthracene	ND		0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND		0.28	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND		0.30	ug/l	
207-08-9	Benzo(k)fluoranthene	ND		0.41	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND		0.27	ug/l	
85-68-7	Butyl benzyl phthalate	ND		0.16	ug/l	
91-58-7	2-Chloronaphthalene	ND		0.19	ug/l	
106-47-8	4-Chloroaniline	ND		0.19	ug/l	
218-01-9	Chrysene	ND		0.22	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND		0.12	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND		0.26	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND		0.20	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND		0.25	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	600	0.25	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND		0.21	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	600	0.27	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	75	0.24	ug/l	
121-14-2	2,4-Dinitrotoluene	ND		0.29	ug/l	
606-20-2	2,6-Dinitrotoluene	ND		0.44	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND		0.47	ug/l	

ND = Not detected
MCL = Maximum Contamination Level (NJAC 7:10-1 11/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
Method:	EPA 625 EPA 625	**Percent Solids:**	n/a
Project:	Lab Animal Room Water		

ABN AP9 special List

CAS No.	Compound	Result	MCL	RL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND		0.20	ug/l	
60-51-5	Dimethoate	ND		5.0	ug/l	
298-04-4	Disulfoton	ND		5.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND		0.12	ug/l	
117-84-0	Di-n-octyl phthalate	ND		0.16	ug/l	
84-66-2	Diethyl phthalate	ND		0.25	ug/l	
131-11-3	Dimethyl phthalate	ND		0.18	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	6.0	0.29	ug/l	
52-85-7	Famphur	ND		5.0	ug/l	
206-44-0	Fluoranthene	ND		0.11	ug/l	
86-73-7	Fluorene	ND		0.19	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.13	ug/l	
87-68-3	Hexachlorobutadiene	ND		0.28	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	50	20	ug/l	
67-72-1	Hexachloroethane	ND		0.14	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND		0.20	ug/l	
78-59-1	Isophorone	ND		0.10	ug/l	
298-00-0	Methyl parathion	ND		5.0	ug/l	
91-20-3	Naphthalene	ND	300	0.14	ug/l	
98-95-3	Nitrobenzene	ND		0.28	ug/l	
62-75-9	n-Nitrosodimethylamine	ND		0.44	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND		0.33	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND		0.16	ug/l	
56-38-2	Parathion	ND		10	ug/l	
85-01-8	Phenanthrene	ND		0.15	ug/l	
298-02-2	Phorate	ND		5.0	ug/l	
129-00-0	Pyrene	ND		0.19	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	9.0	0.16	ug/l	
297-97-2	Thionazin	ND		5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		15-93%
4165-62-2	Phenol-d5	11%		10-76%
118-79-6	2,4,6-Tribromophenol	80%		38-144%
4165-60-0	Nitrobenzene-d5	100%		43-126%
321-60-8	2-Fluorobiphenyl	94%		38-130%
1718-51-0	Terphenyl-d14	110%		24-155%

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N = Indicates presumptive evidence of a compound

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
Method:	EPA 508 EPA 508	**Percent Solids:**	n/a
Project:	Lab Animal Room Water		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX20502.D	1	05/30/01	KLS	05/27/01	OP9477	GXX402
Run #2	CD49493.D	1	06/05/01	LLP	05/27/01	OP9477	GCD1882

Pesticide/PCB PPL List

CAS No.	Compound	Result	MCL	RL	Units	Q
309-00-2	Aldrin	ND		0.0075	ug/l	
319-84-6	alpha-BHC	ND		0.0055	ug/l	
319-85-7	beta-BHC	ND		0.0049	ug/l	
319-86-8	delta-BHC	ND		0.0075	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.20	0.0055	ug/l	
12789-03-6	Chlordane	ND	0.50	0.19	ug/l	
60-57-1	Dieldrin	ND		0.0065	ug/l	
72-54-8	4,4'-DDD	ND		0.014	ug/l	
72-55-9	4,4'-DDE	ND		0.012	ug/l	
50-29-3	4,4'-DDT	ND		0.010	ug/l	
72-20-8	Endrin	ND	2.0	0.0095	ug/l	
1031-07-8	Endosulfan sulfate	ND		0.0075	ug/l	
7421-93-4	Endrin aldehyde	ND		0.0080	ug/l	
959-98-8	Endosulfan-I	ND		0.0050	ug/l	
33213-65-9	Endosulfan-II	ND		0.0075	ug/l	
76-44-8	Heptachlor	ND	0.40	0.0075	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.20	0.0060	ug/l	
72-43-5	Methoxychlor	ND	40	0.049	ug/l	
8001-35-2	Toxaphene	ND	3.0	0.34	ug/l	
12674-11-2	Aroclor 1016	ND [a]	0.50	0.24	ug/l	
11104-28-2	Aroclor 1221	ND [a]	0.50	0.090	ug/l	
11141-16-5	Aroclor 1232	ND [a]	0.50	0.12	ug/l	
53469-21-9	Aroclor 1242	ND [a]	0.50	0.30	ug/l	
12672-29-6	Aroclor 1248	ND [a]	0.50	0.22	ug/l	
11097-69-1	Aroclor 1254	ND [a]	0.50	0.11	ug/l	
11096-82-5	Aroclor 1260	ND [a]	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	82%	81%	66-121%
877-09-8	Tetrachloro-m-xylene	80%	89%	66-121%
2051-24-3	Decachlorobiphenyl	79%	98%	61-131%
2051-24-3	Decachlorobiphenyl	76%	103%	61-131%

(a) Result is from Run# 2

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ND = Not detected
MCL = Maximum Contamination Level (NJAC 7:10-1 11/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
Method:	SW846 8151 SW846 3510C	**Percent Solids:**	n/a
Project:	Lab Animal Room Water		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF32253.D	1	05/25/01	YYX	05/24/01	OP9472	GEF1846
Run #2							

Herbicide List

CAS No.	Compound	Result	MCL	RL	Units	Q
94-75-7	2,4-D	ND	70	0.50	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	50	0.10	ug/l	
93-76-5	2,4,5-T	ND		0.10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	85%		57-158%
19719-28-9	2,4-DCAA	88%		57-158%

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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)

Accutest Laboratories

Report of Analysis

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
		Percent Solids:	n/a
Project:	Lab Animal Room Water		

Metals Analysis

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed	By	Method
Antimony	<0.0050	0.0060	0.0050	mg/l	1	06/07/01	06/07/01	JDM	EPA 200.9
Arsenic	<0.0050	0.050	0.0050	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Beryllium	<0.0030	0.0040	0.0030	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Cadmium	<0.0040	0.0050	0.0040	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Calcium	49.6		5.0	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Chromium	<0.010	0.10	0.010	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Copper	0.097	1.3	0.025	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Lead	<0.0030	0.015	0.0030	mg/l	1	05/24/01	05/24/01	JDM	EPA 200.9
Magnesium	26.7		5.0	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Manganese	<0.015	0.050	0.015	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Mercury	<0.00020	0.0020	0.00020	mg/l	1	06/01/01	06/04/01	RP	EPA 245.1
Nickel	<0.040		0.040	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Selenium	<0.0050	0.050	0.0050	mg/l	1	05/25/01	05/25/01	JDM	EPA 200.9
Silver	<0.010	0.10	0.010	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Thallium	<0.0020	0.0020	0.0020	mg/l	1	06/13/01	06/15/01	JDM	EPA 200.9
Zinc	0.040	5.0	0.020	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7

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

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
		Percent Solids:	n/a
Project:	Lab Animal Room Water		

General Chemistry

Analyte	Result	MCL	Units	DF	Analyzed	By	Method
Florescent Pseudomonas							
Florescent Pseudomonads	0		col/ml	1	05/23/01	MJC	ACCUTEST
Coliform, Fecal	0		col/100ml	1	05/22/01	MJC	SM18 9222D
Coliform, Total	NEGATIVE	0		1	05/22/01	MJC	SM18 9223B
Cyanide	<0.010	0.20	mg/l	1	05/24/01	AMS	EPA 335.4
Hardness, Total	235		mg/l	1	05/31/01	KY	EPA 130.2
Nitrogen, Ammonia	0.17		mg/l	1	05/26/01	JK	EPA350.1, SM4500NH3H
Phenols	<0.050		mg/l	1	05/25/01	JK	EPA 420.2
Plate Count, Total	0		CFU/ml	1	05/23/01	MJC	SM18 9215B
Solids, Total Suspended	<4.0		mg/l	1	05/23/01		EPA 160.2

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