**UNITED STATES**
**ENVIRONMENTAL PROTECTION AGENCY**
**REGION III**
**1650 Arch Street**
**Philadelphia, Pennsylvania 19103-2029**

| | | |
|---|---|---|
| IN THE MATTER OF: | ) | ORDER ON CONSENT |
| | ) | |
| | ) | |
| Mountaire Farms of | ) | Proceeding under section 1431(a)(1) |
| Delaware, Inc. | ) | of the Safe Drinking Water Act, |
| Rt. 24 East of Millsboro | ) | 42 U.S.C. § 300i(a)(1) |
| PO Box 1320 | ) | |
| Millsboro, DE 19966 | ) | **Docket No. SDWA-03-2003-0015** |

## I. STATUTORY AUTHORITY

1. This Order on Consent ("Order") is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency ("EPA") by Section 1431(a)(1) of the Safe Drinking Water Act ("SDWA"), 42 U.S.C. § 300i(a)(1).

2. The authority to issue this Order was delegated to the Regional Administrator by Delegation No. 9-17, dated May 11, 1994, and redelegated to the Director of the Water Protection Division by Delegation No. 9-17, dated September 12, 1994.

3. Under the SDWA, Congress has authorized EPA to exercise broad authority for the protection of public water supplies and drinking water sources.

## II. DEFINITIONS

4. The term "underground source of drinking water" ("USDW") means, in part, an aquifer or its portion which contains a sufficient quantity of ground water to supply a public water system and currently supplies drinking water for human consumption or contains fewer than 10,000 milligrams per liter ("mg/l") total dissolved solids, and which is not an exempted aquifer. See 40 C.F.R § 144.3.

5. The term "aquifer" means a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring. See 40 C.F.R. § 144.3.



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6. The term "down gradient" means in the direction of the flow of ground water in the surficial aquifer.

7. The term "concentration of nitrate" shall mean the nitrate ion measured as nitrogen.

8. The term "concentration of nitrite" shall mean the nitrite ion measured as nitrogen.

9. The term "combined nitrate and nitrite" shall mean the sum of the mass loading of nitrate, measured as nitrogen, and the mass loading of nitrite, measured as nitrogen.

10. The term "contaminant" means any physical, chemical, biological, or radiological substance or matter in water. See 42 U.S.C. § 300f(6).

11. The Maximum Contaminant Level (MCL) is the maximum permissible level of a contaminant in water which is delivered to any user of a public water system. See 42 U.S.C. §300f(3). Studies that are the basis for setting the MCL's indicate adverse health effects for contaminants in drinking water exceeding these levels.

12. "Section" shall mean a portion of this Order identified by a Roman numeral.

13. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral.

14. All terms not defined herein shall have their ordinary meaning, unless such terms are defined in the SDWA or its implementing regulations, in which case the statutory or regulatory definitions shall apply.

## III. FINDINGS OF FACT AND CONCLUSIONS OF LAW

Based on the information in its possession, EPA makes the following findings of fact and conclusions of law:

15. Respondent, Mountaire Farms of Delaware, Inc. ("Mountaire"), is a corporation and is therefore a "person" within the meaning of Section 1401(12) of the SDWA, 42 U.S.C. § 300f(12).

16. Mountaire owns and operates a poultry processing facility on State Route 24 ("Facility") located approximately two miles east of Millsboro, in Sussex County, Delaware.

17. The "Site" is defined as both the Facility operated by Mountaire and all private property within the perimeter of the polygon defined to the north by State Route 297 (Morris Mill Road), on the west by State Route 305 (Hollyville Road) to the east by Swan Creek and Logwood Pond and to the south by Indian River (Attachment1 ).

18. The substances nitrate and nitrite are "contaminants" within the meaning of Section 1401(6) of the SDWA, 42 U.S.C. § 300f(6).



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19. The EPA sets drinking water standards and has determined that nitrate poses an acute health concern at certain levels of exposure. See 40 C.F.R. § 141.32(e)(20). Nitrate in drinking water is colorless and odorless. Ingestion of nitrate, which is converted to nitrite in the body, interferes with the oxygen carrying capacity of blood, potentially resulting in cyanosis and, at higher levels, asphyxia. High levels of nitrate in water can lead to high levels of nitrite in infants, resulting in a blood disorder known as methemoglobinemia, or "blue baby syndrome," that can be fatal if left untreated. Infants up to three months of age are the most susceptible with regard to nitrate. This is due to the fact that about 10 percent of ingested nitrate is transformed to nitrite in the adult and child, whereas 100 percent of ingested nitrate can be transformed to nitrite in the infant. In particular, infants with a weight of less than 4 kilograms (8.8 lbs.) represent a high risk subpopulation. Pregnant women, adults with reduced stomach acidity, and individuals deficient in the enzyme that changes methemoglobin back to normal hemoglobin are all susceptible to nitrite-induced methemoglobinemia. Prolonged intake of high levels of nitrate has been linked to gastric problems due to the formations of nitrosamines, which have been associated with symptoms of marked hypertension including sharply decreased venous pressure, decreased systolic pressure, increased diastolic pressure, increased heart rate, and deep respirations.

20. The MCL for nitrate identified under the Safe Drinking Water Act is 10 mg/l as nitrogen. See 40 C.F.R. § 141.62. EPA has established this drinking water standard to protect against the adverse effects of nitrate based on studies conducted to establish the MCL. See 40 C.F.R. § 141.32 (e)(20). At 10 mg/l or more, nitrate poses a health threat to the population in general, and an acute health threat to children under six months of age.

21. The MCL for nitrite identified under the Safe Drinking Water Act is 1 mg/l as nitrogen. See 40 C.F.R. § 141.62. EPA has established this drinking water standard to protect against the adverse effects of nitrite based on studies conducted to establish the MCL. See 40 C.F.R. § 141.32 (e) (21).

22. The MCL for total nitrate plus nitrite identified under the Safe Drinking Water Act is 10 mg/l as nitrogen. See 40 C.F.R. § 141.62. EPA has established this MCL for the sum of nitrate and nitrite to allow for the fact that the toxicity of nitrate and nitrite are additive based on studies conducted to establish the MCL. See 40 C.F.R. §141.32 (e) (20).

23. Nitrate in drinking water at levels in excess of the current 10 mg/l MCL has been responsible for serious methemoglobinemia and mortality in some infants under the age of approximately six months. Levels of nitrate between 10 and 25 mg/l could cause adverse health effects in the general population, with the degree of impact related to the contribution of nitrates from drinking water and the sensitivity of the individual.

24. Mountaire has had operational responsibility for the Facility since May 15, 2000. The Facility includes a poultry processing plant, feed mill, chicken hatchery, a wastewater treatment plant for industrial waste and domestic sewage, and agricultural lands. A poultry processing facility has operated on this property since at least 1987. The Facility waste management system

is operated under a State permit issued to the Respondent for a waste lagoon and spray irrigation fields.

25. The water-bearing formations underlying the Site and the surrounding residential water supply wells consist of the Columbia surficial aquifer and the deeper Upper Chesapeake aquifer, which currently supply drinking water for human consumption to both the onsite public water supply and residential wells. The productive zones of these aquifers consist of fine grained to coarse sands with yields sufficient to supply a public water system. Sussex County, Delaware, relies solely on ground water for public drinking water supplies. Private wells in this area are reportedly completed to depths of 50 to 100 feet, and have adequate yield to supply the needs of a household. Therefore, the aquifers are underground sources of drinking water within the meaning of 40 C.F.R.§ 144.3. The soils in the area are from the Evesboro-Rumford association, according to the U.S. Department of Agriculture and characterized as being excessively drained soils that have a rapidly permeable subsoil of sand to sandy loam. Such characteristics make the aquifers vulnerable to infiltration of contaminants.

26. Poultry processing produces nitrogenous organic waste, which is present in the Facility wastewater. This Facility operates a spray irrigation system to dispose of the poultry processing plant wastewater at a rate of approximately 1.4 million gallons per day (MGD) onsite. Ammonia is produced by the breakdown of waste fluids.

27. Where aerobic conditions are present, such as is typical in a surficial aquifer, ammonia will be converted to nitrate and nitrite. Due to their high solubility, nitrate and nitrite will readily leach into ground water. Plants can uptake nitrates and nitrites, but only in limited quantities. Mountaire is required to maintain ground vegetation year-round to utilize the nitrates; however, quantities of nitrates and nitrites in the soil in excess of levels which can be used by plants can migrate to ground water where they may adversely impact private and public drinking water wells.

28. EPA finds that poultry operations at the Facility have impacted the nitrate levels in the ground water used as a source of drinking water and therefore caused or contributed to the contamination of the USDW underlying the Site. Ground water sampling has been conducted on the Site both by Respondent, and by the previous owner, Townsend Inc., through an established monitoring program, since at least 1987. Nitrate levels onsite have been plotted by the Delaware Department of Natural Resources and Environmental Control (DNREC) for several quarters during 1987, 1991, 1993, 1995, 1999, 2001, and 2002 (Attachment 2). The results from this network of monitoring wells indicate that the levels of nitrate in the ground water have ranged from 1- 200 mg/l nitrate onsite over time. The most recent samples, dated October 3, for the third quarter of 2002, show results ranging from less than 1 mg/l to 30 mg/l for nitrate.

29. The Delaware Department of Health and Social Services (DHSS) has conducted sampling of private wells within the Site boundary in the past several months. Samples from eleven (11) residential wells within the perimeter of the Site have been collected and ten (10) of those exceed 10 mg/l, with levels ranging from 12.7 to 25.6 mg/l (Attachment 3). The remaining

well appears to be a deeper well and had levels below the detection level of 0.3 mg/l. This well also has either ion exchange or carbon treatment unit installed. The concentration of nitrate in the six (6) wells indicate that the USDW underlying the Site is contaminated and the consumption of drinking water with these levels of nitrate may present an imminent and substantial endangerment to public health.

30. Mountaire is also a public water supply with an onsite well serving the Facility's over 1,000 employees. In 1991, a level exceeding 20 mg/l nitrate was detected in the onsite well. At that time, the DHSS required Townsend Inc., the prior owner, to provide nitrate treatment or drill a new well to meet drinking water standards. Townsend Inc. drilled a new, deeper well and returned to compliance with the MCL for nitrate. Mountaire continues to operate this well in compliance with the MCL for nitrate.

31. EPA has consulted with DHSS and DNREC to confirm that the information on which this Order is based is correct. DHSS has notified EPA that it lacks the authority to order the provision of an alternate water supply for private water supply wells. EPA has concluded that all the requisite conditions have been satisfied for EPA action under Section 1431(a)(1) of the SDWA, 42 U.S.C. § 300i(a)(1).

32. EPA finds that there are contaminants present in the USDW underlying the Site which may present an imminent and substantial endangerment to the health of persons drinking water from the public and private residential water supply wells contaminated (by activities at the Facility.)

33. Section 1431(a) of the SDWA, 42 U.S.C. § 300i(a), specifies that the Administrator, upon receipt of information that a contaminant which is present in or likely to enter a public water system or an underground source of drinking water may present an imminent and substantial endangerment to the health of persons, may issue such order as may be necessary to protect the health of such persons, including travelers. EPA has determined the actions required by this Order are necessary to protect the health of persons who are or may become users of the public water systems and/or USDW identified above.

## IV. ORDER ON CONSENT

Pursuant to the authority issued to the EPA Administrator by Section 1431(a)(1) of the SDWA, 42 U.S.C. § 300i(a)(1), and delegated to the Regional Administrator, and redelegated to the Director of the Water Protection Division, Mountaire is ORDERED and hereby consents to the following:

Provision of Emergency Drinking Water for Affected Population

34. Within 24 hours of receipt of this Order, Mountaire shall offer to provide an emergency supply of drinking water for human consumption to all the residences within the Site which have been or will be sampled by DHSS or EPA and found to exceed 10 mg/l nitrate, the locations of which are shown on Attachment 4. Such offer shall be in the form of a letter, with

accompanying explanation, a copy of which is included as Attachment 4. If there is no response from a residence within ten (10) calendar days, Mountaire shall repeat the notification attempt with a certified letter return receipt requested. Such water is to be provided by Mountaire at no cost to the residents.

35. The water for human consumption required to be provided under Paragraph 34 shall mean bottled water, bulk water from a tank truck, or water from some other source acceptable to DHSS and EPA. Such water shall meet the water quality requirements of 40 C.F. R. § 141, Subpart G, for domestic uses and shall be provided at a location and in a container convenient to the residents. Delivery shall continue at a frequency convenient to the residents and be of an adequate volume to meet the day-to-day needs of the residents until a permanent alternate water supply is in place in accordance with Paragraph 36.

36. Within sixty (60) calendar days of the effective date of this Order, Mountaire shall submit to EPA, DNREC and DHSS for review and EPA approval (after consultation with DNREC and DHSS), a plan to provide a permanent alternate water supply ("Alternate Water Supply") to the residences identified in Paragraph 34 above. This plan must describe available options for each location which are acceptable to the applicable resident, including drilling a new well, or provision of point of entry or point of use devices for the treatment of the drinking water such that it will be in compliance with all state drinking water requirements and of adequate volume to meet the day-to-day needs of the residents.

37. If a point of entry or point of use treatment device is chosen as the proposed remedy, it must comply with Delaware Code Section 22.211. The Alternate Water Supply and any long term maintenance of a point of use or point of entry device must be provided at no cost to the residences. Maintenance of these devices will be provided by Mountaire until it can be reliably proven that the pre-treated water is in compliance with all drinking water standards for nitrates.

Monitoring/Remediation Program

38. Commencing with the effective date of this Order, Mountaire shall implement a ground water monitoring/remediation program ("Program"). The Program shall consist of: 1) operation of Mountaire's wastewater treatment/spray irrigation systems in a manner which controls nitrogen loadings to the spray fields and insures that the annual average nitrate levels at the Facility are below 10 mg/l on any spray field; 2) continued operation of Mountaire's irrigation and production wells in areas of elevated nitrate levels in order to reduce overall nitrate levels at the Facility; and 3) quarterly monitoring for a two year period, on a schedule to be approved by EPA, of existing wells numbered 35, 36, 37, 42, 43, 47 (depicted on Attachment 5) and one or more wells to replace monitoring wells 38 and 39 which are no longer in use, so that samples from the wells accurately represent ground water conditions down gradient of the Facility. Notwithstanding any other provision of this Order, any modification to the Program shall be consistent with the scope of the Program as set forth in this paragraph.

39. For two years commencing with the effective date of this Order, Mountaire shall



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submit to EPA, at the address specified in Paragraph 54, results of the quarterly monitoring conducted as part of the Program. Sampling results shall be submitted to EPA within ten (10) days of receipt by Mountaire.

## V. EPA APPROVALS

40. EPA reserves the right to comment on, modify, and/or direct changes to any plan or program, report, specification, or schedule submitted pursuant to or required by this Order. When a document is submitted to EPA for approval, EPA shall provide Respondent with its written approval, approval with conditions and/or modifications, or disapproval. If such document submittal is disapproved, in whole or in part, EPA shall either (a) notify Respondent that EPA will modify the document to cure the deficiencies and require Respondent to implement such modifications or (b) direct Respondent to modify the document to cure the deficiencies. Revised submittals are also subject to EPA approval, approval with conditions and/or modifications, or disapproval.

41. Upon receipt of a notice of disapproval and/or notice directing modification of the document, Respondent shall, within fourteen (14) calendar days, cure the deficiencies and resubmit the document for approval. Should EPA determine that Respondent has failed to cure any deficiency, EPA reserves the right to modify the document to correct the deficiency and to direct the Respondent to implement the document as modified.

42. Upon receipt of EPA's written approval, Respondent shall commence work and implement any approved plan or program in accordance with the schedule and provisions contained therein. If no schedule is contained in an approved plan or program, then Respondent shall commence work and implementation of the plan or program within fourteen (14) calendar days of receipt of EPA's written approval of the plan or program. In the event EPA disapproves the plan or program, in whole or in part, EPA may require Respondent to implement any non-deficient portion of the plan or program.

43. Any EPA-approved plan or program, report, specification, or schedule developed hereunder shall be incorporated by reference into this Order as if set forth fully herein. Prior to EPA's written approval, no plan, program, report, specification, or schedule shall be construed as approved and final. Oral advice, suggestions, or comments given by EPA, DNREC or DHSS representatives do not constitute an official approval, nor shall any oral approval or oral assurance of approval be considered binding.

44. Noncompliance with any plan, program, report, specification, or schedule approved by EPA pursuant to this Order shall be considered a violation of this Order and may subject Respondent to the statutory penalty provisions and/or enforcement actions as provided by Section 1431 of the SDWA, 42 U.S.C. § 300i.

45. Any changes or modifications proposed by Respondent to any EPA-approved plan, program or timetable required by this Order must be approved in writing by EPA prior to



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implementation.

## VI. PARTIES BOUND

46. The provisions of this Order shall apply to and be binding upon Respondent and its employees, agents, successors, and assigns. Notice of this Order shall be given to any successors in interest prior to transfer of the ownership or operation of the Facility or any portion thereof. Action or inaction of any person, firm, contractor, employee, agent, or corporation acting under, through, for or in participation with Respondent, shall not excuse any failure of Respondent to fully perform the obligations under this Order.

47. Respondent shall provide a copy of this Order to any and all business organizations, contractors, subcontractors, laboratories, or consultants which are retained to conduct or monitor any portion of the work performed pursuant to this Order. A copy of the Order shall be provided within seven (7) calendar days of the effective date of this Order or on the date of retention of such contractor, subcontractor, laboratory, or consultant.

48. Respondent shall give notice to EPA at least thirty (30) calendar days prior to the sale, lease, or other transfer of ownership, operation, and/or management of this Facility or any portion thereof.

## VII. GENERAL PROVISIONS

49. Respondent admits the jurisdictional allegations set forth herein and waives any defenses it might have as to jurisdiction and venue and agrees not to contest any of the findings of fact or conclusions of law herein in any action to enforce this Order. Except as to any proceeding brought by EPA to enforce this Order, in agreeing to this Order Respondent makes no admission of fact or law and reserves all rights and defenses available regarding liability or responsibility in any other legal proceeding related to the subject matter of this Order. Respondent waives its right to seek judicial review of the issuance of this Order.

50. This Consent Order may be executed in any number of counterpart originals, each of which shall be deemed to constitute an original agreement, and all of which shall constitute one agreement. The execution of one counterpart by any party shall have the same force and effect as if that party had signed all other counterparts.

51. Respondent shall submit to EPA, DNREC and DHSS written reports each calendar quarter summarizing all actions taken in accordance with this Order ("Progress Reports"). Such Progress Reports shall be submitted on or before the 28th day following the end of each quarter until such time as EPA provides written notice that the reports are no longer necessary, or this Order is terminated.

52. All Progress Reports required by Paragraph 51 herein shall contain the following certification, which shall be signed by a responsible corporate officer:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

The certification shall also include the name, title, date, and signature of the person or persons completing the certification.

53. For purposes of this Order, a responsible corporate officer shall be the president, secretary, treasurer, or vice-president in charge of a principal business function, or any other person who performs similar policy or decision-making functions for Respondent, if authority to sign documents has been delegated in accordance with corporate procedures.

54. All reports and other correspondence required by this Order shall be sent to :

EPA Contact: Amy Cohen (3WP32)
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103
(215) 814-3296

DHSS Contact: Edward Hallock, Program Administrator
Office of Drinking Water
Division of Public Health
Delaware Department of Health and Social Services
Blue Hen Corporate Center Suite 203
Dover, DE 19901
(302) 739-5410

DNREC Contact: Rodney Wyatt, Division of Water Resources
Department of Natural Resources and Environmental Control
89 Kings Highway,
Dover, DE19901
(302) 739-4762

55. Respondent shall use best efforts to obtain consent to provide water and/or access to each of the properties as needed to implement the provision of emergency water and other requirements of this Order. Respondent shall make a good faith effort to obtain consent from each resident. If unsuccessful in gaining consent, Respondent shall immediately notify EPA in



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writing at the address specified in Paragraph 54, and describe its efforts to provide emergency water and/or otherwise obtain access. Following such notification, EPA may attempt to secure consent to provide an alternate water supply and/or access for Respondent, and if EPA is successful, Respondent shall immediately comply with this Order.

56. If any event occurs which causes delay in the achievement of any requirement of this Order, Respondent shall have the burden of proving that the delay was caused by circumstances beyond the reasonable control of Respondent or any entity controlled by Respondent, including but not limited to its contractors and consultants, which could not have been overcome by due diligence. Respondent shall notify EPA verbally within 72 hours, and in writing within seven (7) calendar days of the verbal notification, of the anticipated length and cause of the delay, the measures taken and/or to be taken to prevent or minimize the delay, and the timetable by which Respondent intends to implement these measures. If EPA agrees that the delay or anticipated delay has been or will be caused by circumstances beyond the reasonable control of the Respondent, the time for performance hereunder shall be extended for a period equal to the delay resulting from such circumstances. Respondent shall adopt all reasonable measures to avoid or minimize delay. Failure of Respondent to comply with the notice requirements of this paragraph shall constitute a waiver of Respondent's right to request an extension to meet the requirements of this Order.

57. Nothing in this Order shall be construed to limit or otherwise affect EPA's authority under any applicable law or regulation, including but not limited to, EPA's authority to conduct inspections, to seek access to property, to request the provision of information, or to bring a civil or criminal enforcement action under the SDWA or other applicable statutes or regulations.

58. Respondent may assert a confidentiality claim covering all or part of any information submitted to EPA pursuant to this Order. Any assertion of confidentiality must be accompanied by information that satisfies the items listed in 40 C.F.R. § 2.204(e)(4) or such claim shall be deemed waived. Information determined by EPA to be confidential shall be disclosed only to the extent permitted by 40 C.F.R. Part 2. If no such confidentiality claim accompanies the information when it is submitted to EPA, the information may be made available to the public by EPA without further notice to Respondent. Respondent may not assert any confidentiality claim with regard to any physical or analytical data.

59. To the extent authorized by the SDWA, EPA, its contractors, employees, and representatives are authorized to enter and freely move about the Facility pursuant to this Order for the purposes of, *inter alia*, interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts related to compliance with this Order; reviewing the progress of the Respondent in carrying out the terms of this Order; conducting such tests, sampling, or monitoring as EPA or its representatives deem necessary; using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to EPA by the Respondent. Respondent shall provide EPA and its representatives access to the Facility at all reasonable times and to any other property to which access is required for implementation of this Order. Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, that pertain to work undertaken pursuant to this Order and that are within the possession or under the control of

Respondent or its contractors or consultants.

60. Pursuant to Section 1431(b) of the SDWA, 42 U.S.C. § 300i(b), in the event that Respondent violates, fails or refuses to comply with the terms or require provisions of this Order, EPA may commence a civil action in the appropriate U.S. District Court to compliance with this Order and to assess a civil penalty of up to $17,000 for each day in which such violation occurs or failure to comply continues. Failure to timely complete any requirement of this Order shall be deemed a violation of this Order, beginning on the first day that performance is scheduled to commence.

61. EPA expressly reserves all rights and defenses that it may have, including but not limited to the right to disapprove work performed by Respondent pursuant to this Order and to modify documents submitted by the Respondent and require that Respondent implement those modifications.

62. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, which may pertain to Respondent's failure to comply with any of the requirements of this Order, including without limitation the assessment of penalties under 1431(b) of the SDWA, 42 U.S.C. § 300i(b). This Order shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, powers, and/or authorities, civil or criminal, which EPA has under the SDWA, or under any other statutory, regulatory, or common law authority of the United States. Nothing in this Order shall diminish, impair, or otherwise adversely affect the authority of EPA to enforce the provisions of this Order. This Order shall not be interpreted to relieve Respondent of its obligations to comply with any provision of the SDWA, its implementing regulations, or any other Federal, state, or local law.

63. This Order shall not limit or otherwise preclude EPA from taking additional enforcement action, civil or criminal, pursuant to the SDWA, or any other available legal authority, should EPA determine that such action is appropriate. Issuance of this Order is not an election by EPA to forego any civil or criminal action otherwise authorized under the SDWA or other laws.

64. All actions required to be taken pursuant to this Order shall be undertaken in accordance with the requirements of all applicable local, state, and Federal laws and regulations. Respondent shall obtain or cause its representative to obtain all permits and approvals necessary under such laws and regulations to perform work pursuant to this Order and shall submit timely applications and requests for any such permits and approvals.

65. This Order may be modified only upon the written consent of both parties.

66. If any provision or authority of this Order, or the application of this Order to any party or circumstance, is held by any judicial or administrative authority to be invalid, the application of such provision(s) to other parties or circumstances and the remainder of the Order shall remain in force and shall not be affected thereby.

## VIII. EFFECTIVE DATE OF ORDER

This Order shall be effective immediately upon Respondent's receipt of the executed Order. If modifications are made to this Order, such modifications will be effective on the date received by Respondent. This Order shall remain in effect until the provisions identified in the Order have been met and EPA has certified its approval of the same in writing. This Order shall constitute final agency action for purposes of Section 1448 of the SDWA, 42 U.S.C. § 300j-7.

## IX. TERMINATION AND SATISFACTION

The provisions of this Order shall be deemed satisfied upon Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the terms of this Order have been satisfactorily completed.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III

Date: 5/12/03

By: _____
Jon M. Capacasa, Acting Director
Water Protection Division

Mountaire Farms of Delaware, Inc.

Date: 4/22/03

By: _____

Title: President and COO



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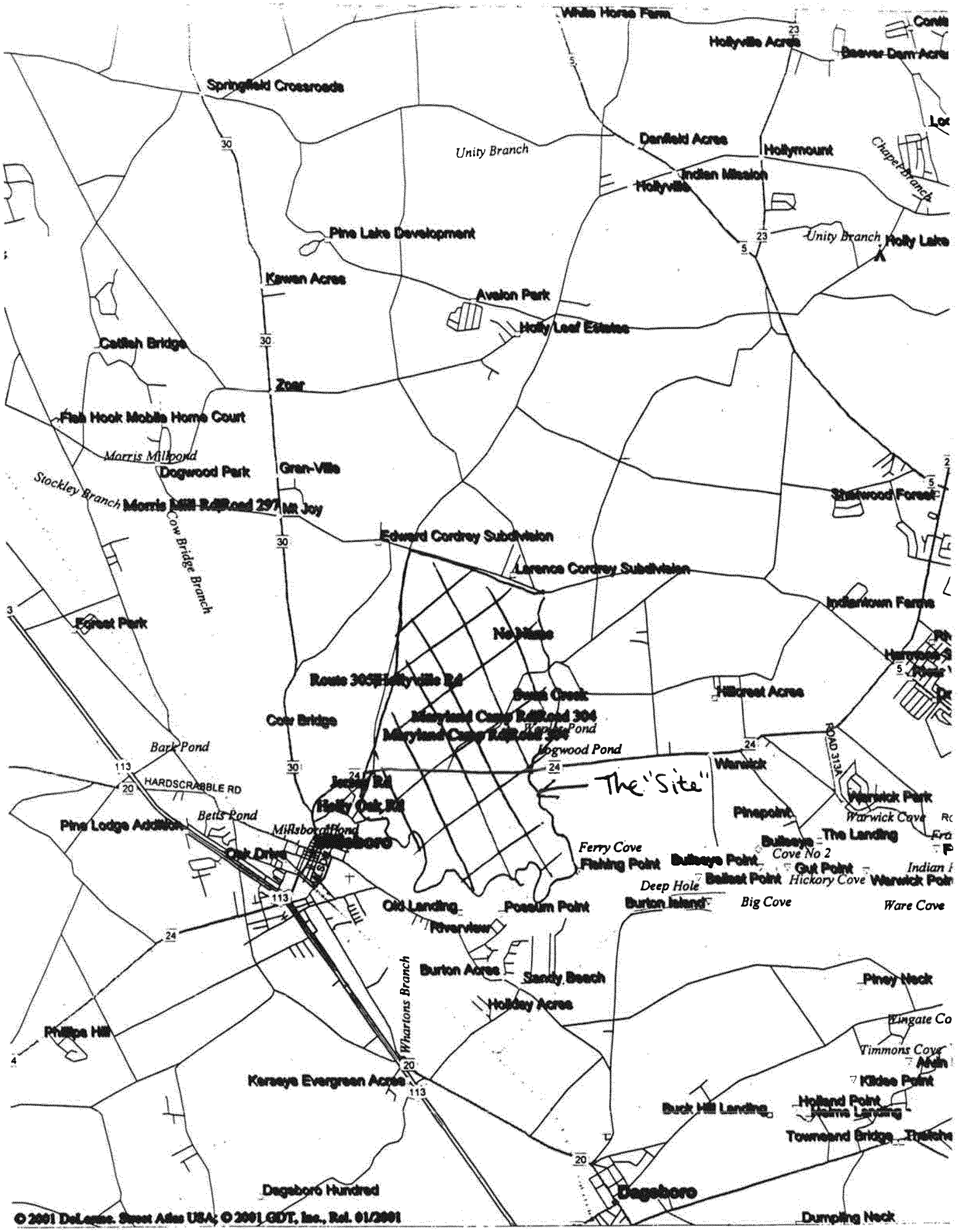
Attachment 1
(Referenced in paragraph 17)

Map indicating Mountaire Farms property boundary (approximate)


White Horse Farm
Hollyville Acres
Beaver Dam Acres
Springfield Crossroads
Unity Branch
Danfield Acres
Hollymount
Chapel Branch
Indian Mission
Hollyville
Pine Lake Development
Unity Branch
Holly Lake
Kawan Acres
Avalon Park
Holly Leaf Estates
Catfish Bridge
Zoar
Fish Hook Mobile Home Court
Morris Millpond
Dogwood Park
Gran-Ville
Stockley Branch
Morris Mill Rd/Road 297
Mt Joy
Cow Bridge Branch
Edward Cordrey Subdivision
Larence Cordrey Subdivision
Sherwood Forest
Indiantown Farms
Forest Park
No Name
Route 305/Hollyville Rd
Swan Creek
Hillcrest Acres
Cow Bridge
Maryland Camp Rd/Road 304
Maryland Camp Rd/Road 304
Wooley Pond
Bark Pond
Logwood Pond
Warwick
ROAD 313A
HARDSCRABBLE RD
Jersey Rd
The "Site"
Holly Oak Rd
Warwick Park
Pine Lodge Addition
Betts Pond
Millsboro Pond
Pinepoint
Warwick Cove
Oak Drive
Ferry Cove
Bullseye
The Landing
Cove No 2
Fishing Point
Bullseye Point
Gut Point
Indian
Deep Hole
Ballast Point
Hickory Cove
Warwick Point
Old Landing
Possum Point
Burton Island
Big Cove
Ware Cove
Riverview
Burton Acres
Sandy Beach
Piney Neck
Whartons Branch
Holiday Acres
Wingate Co
Phillips Hill
Timmons Cove
Kerseys Evergreen Acres
Kildee Point
Buck Hill Landing
Holland Point
Holms Landing
Townsend Bridge
Dagsboro Hundred
Dagsboro
Dumpling Neck
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Attachment 2
( Referenced in paragraph 28)

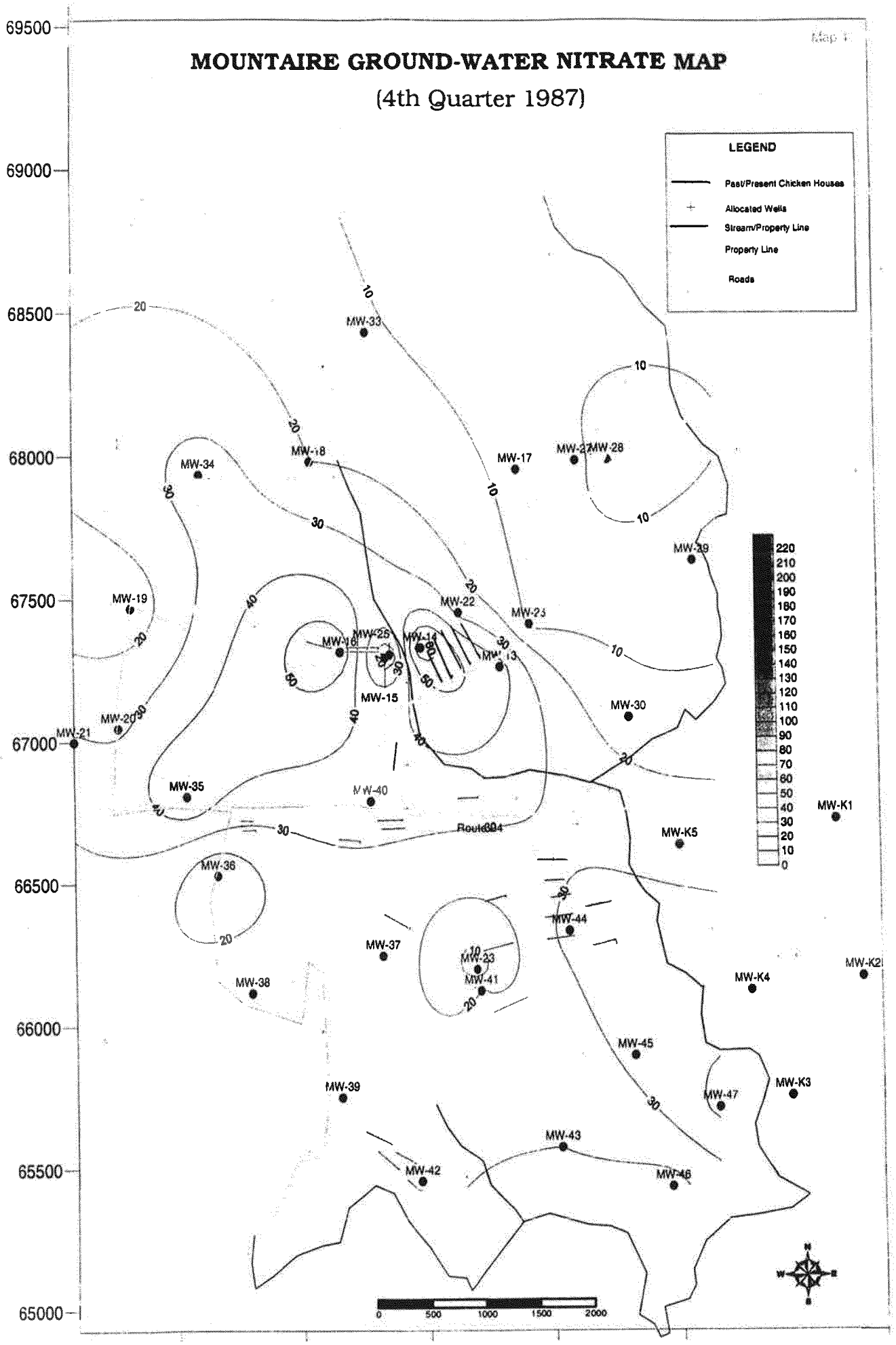
Contour Maps Indicating
Nitrate Levels from Monitoring Well Data

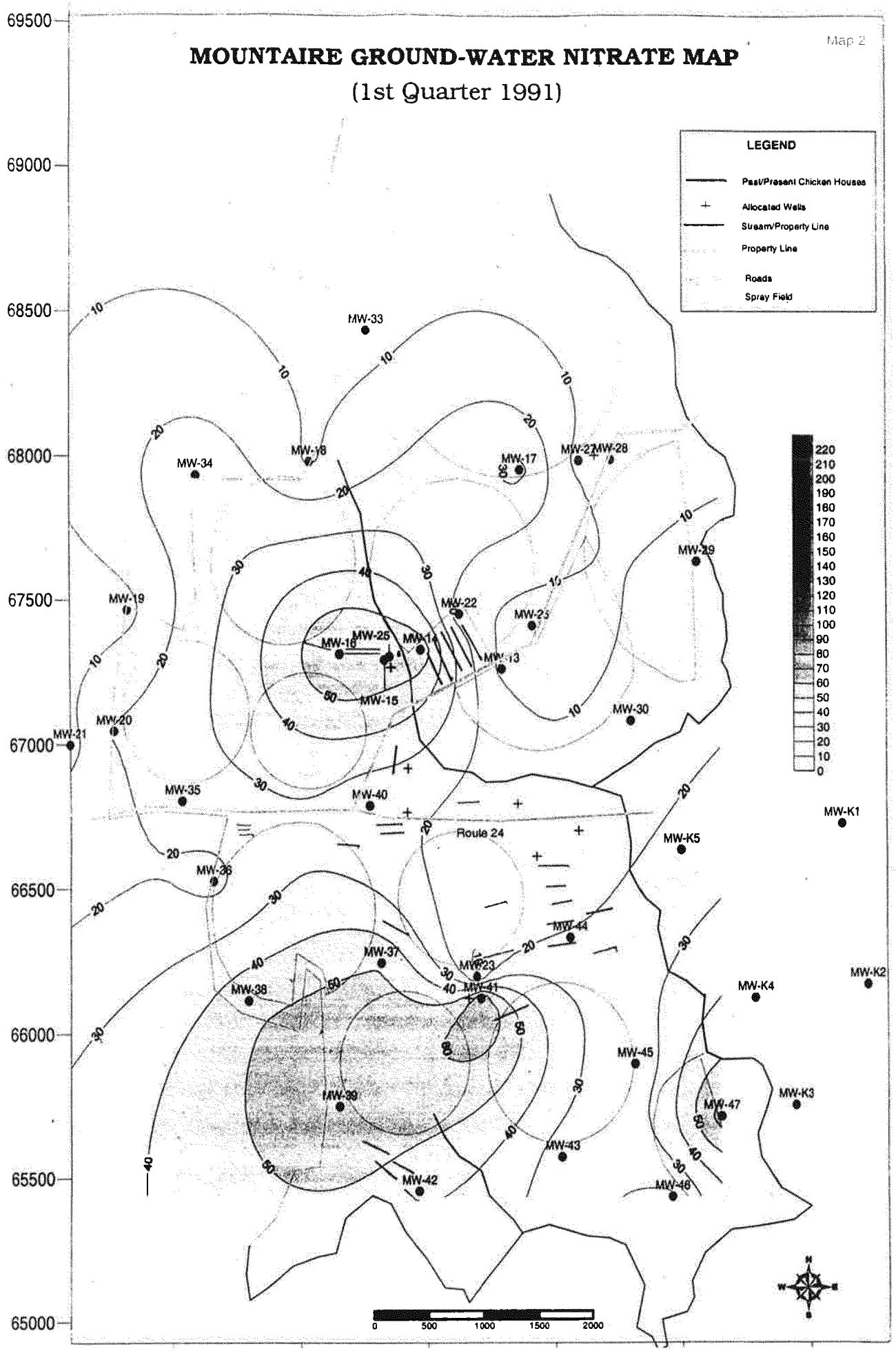
| | |
|---|---|
| Mountaire Ground -Water Nitrate Map (4th Quarter 1987) | Map 1 |
| Mountaire Ground -Water Nitrate Map (1st Quarter 1991) | Map 2 |
| Mountaire Ground -Water Nitrate Map (2nd Quarter 1991) | Map 3 |
| Mountaire Ground -Water Nitrate Map (3rd Quarter 1991) | Map 4 |
| Mountaire Ground -Water Nitrate Map (4th Quarter 1991) | Map 5A |
| Mountaire Ground -Water Nitrate* Map (1st Quarter 1993) | Map 9A |
| Mountaire Ground -Water Nitrate Map (3rd Quarter 1993) | Map 10A |
| Mountaire Ground -Water Nitrate Map (2nd Quarter 1995) | Map 14A |
| Mountaire Ground -Water Nitrate Map (2nd Quarter 1999) | Map 16 |
| Mountaire Ground -Water Nitrate Map (November 2001) | Map 18A |
| Mountaire Ground -Water Nitrate Map (1st Quarter 2002) | Map 19A |

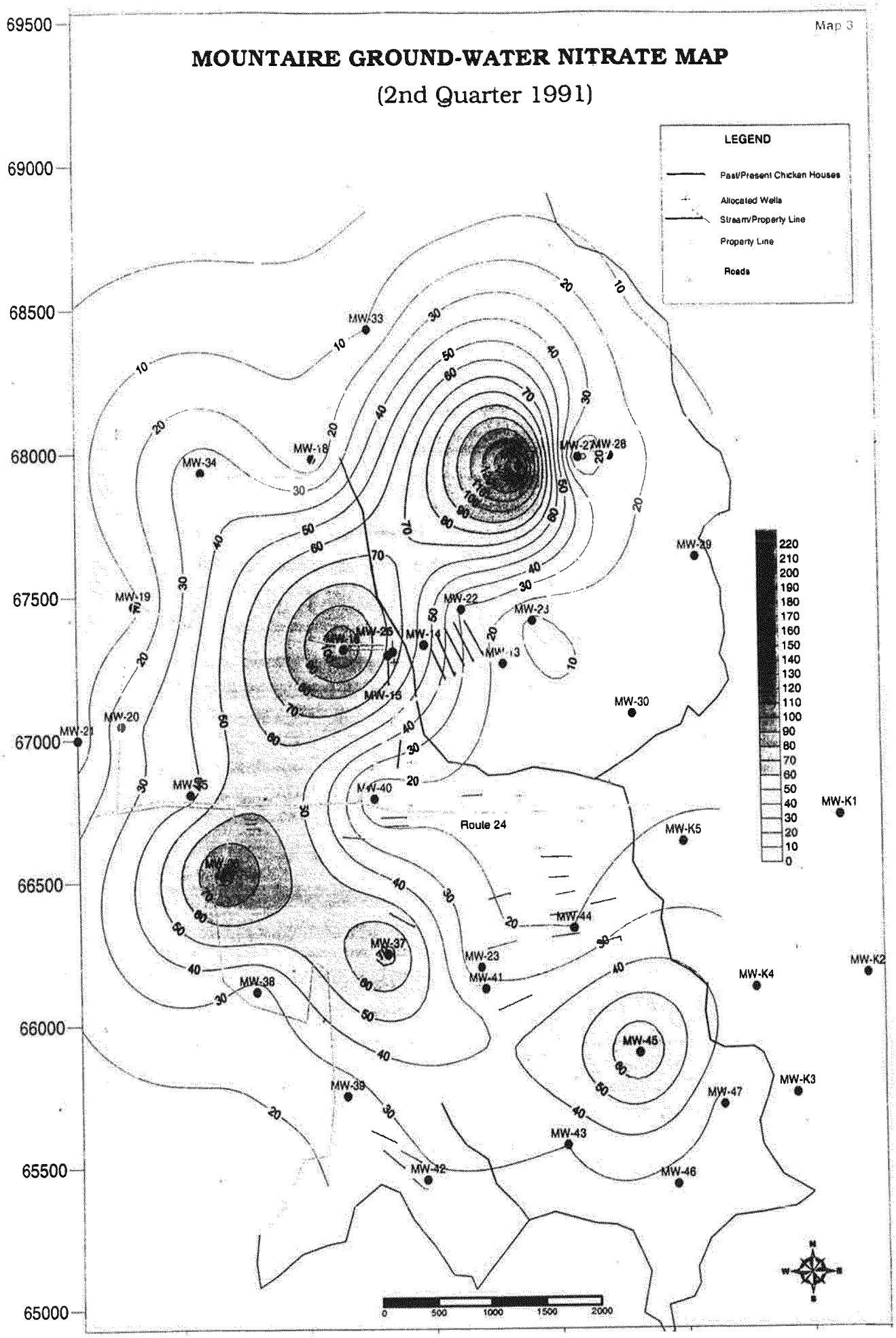
(*mislabeled)

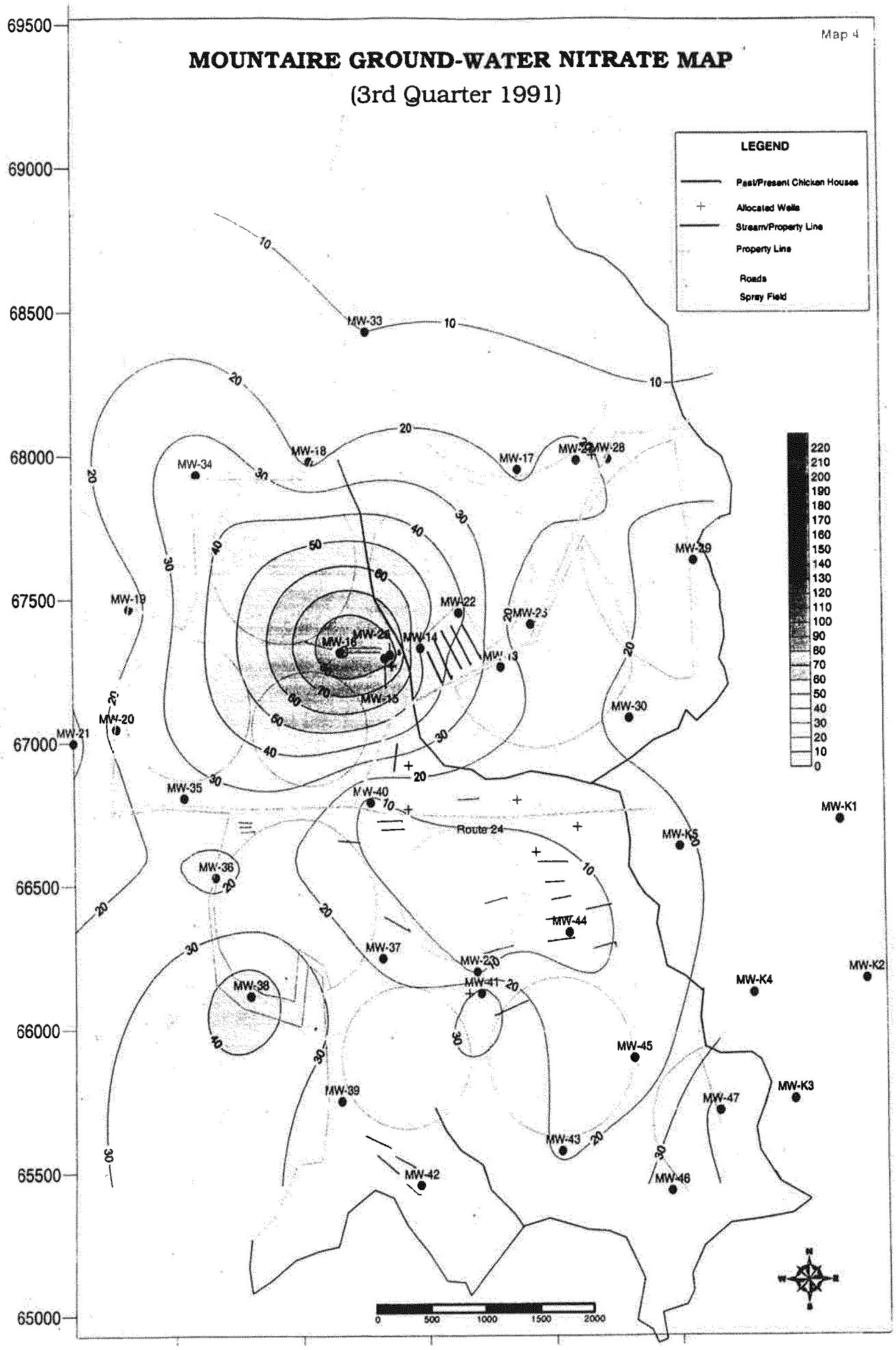
# MOUNTAIRE GROUND-WATER NITRATE MAP

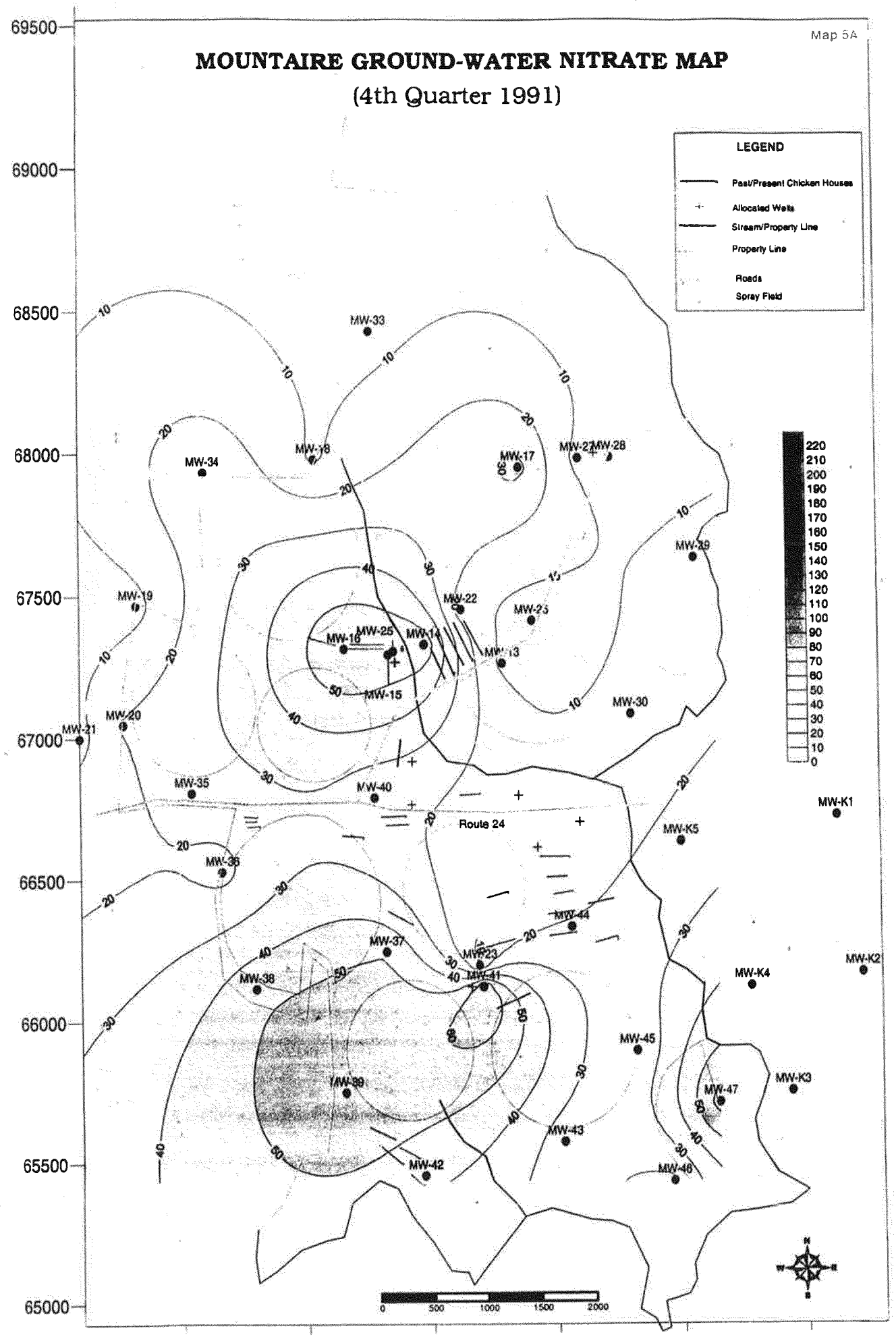
(4th Quarter 1987)




MOUNTAIRE GROUND-WATER NITRATE MAP
(1st Quarter 1991)
Map 2
LEGEND
Past/Present Chicken Houses
Allocated Wells
Stream/Property Line
Property Line
Roads
Spray Field
69500
69000
68500
68000
67500
67000
66500
66000
65500
65000
MW-33
MW-34
MW-18
MW-17
MW-27
MW-28
MW-29
MW-19
MW-22
MW-23
MW-25
MW-16
MW-14
MW-13
MW-15
MW-30
MW-20
MW-21
MW-35
MW-40
Route 24
MW-K1
MW-K5
MW-36
MW-44
MW-37
MW-23
MW-41
MW-38
MW-K2
MW-K4
MW-45
MW-39
MW-47
MW-K3
MW-43
MW-42
MW-46
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
0
500
1000
1500
2000


Map 3
MOUNTAIRE GROUND-WATER NITRATE MAP
(2nd Quarter 1991)
LEGEND
Past/Present Chicken Houses
Allocated Wells
Stream/Property Line
Property Line
Roads
69500
69000
68500
68000
67500
67000
66500
66000
65500
65000
MW-33
MW-18
MW-34
MW-27
MW-28
MW-29
MW-19
MW-22
MW-23
MW-25
MW-14
MW-13
MW-15
MW-30
MW-20
MW-21
MW-40
Route 24
MW-K5
MW-K1
MW-44
MW-37
MW-23
MW-41
MW-38
MW-K4
MW-K2
MW-45
MW-39
MW-47
MW-K3
MW-43
MW-42
MW-46
0
500
1000
1500
2000

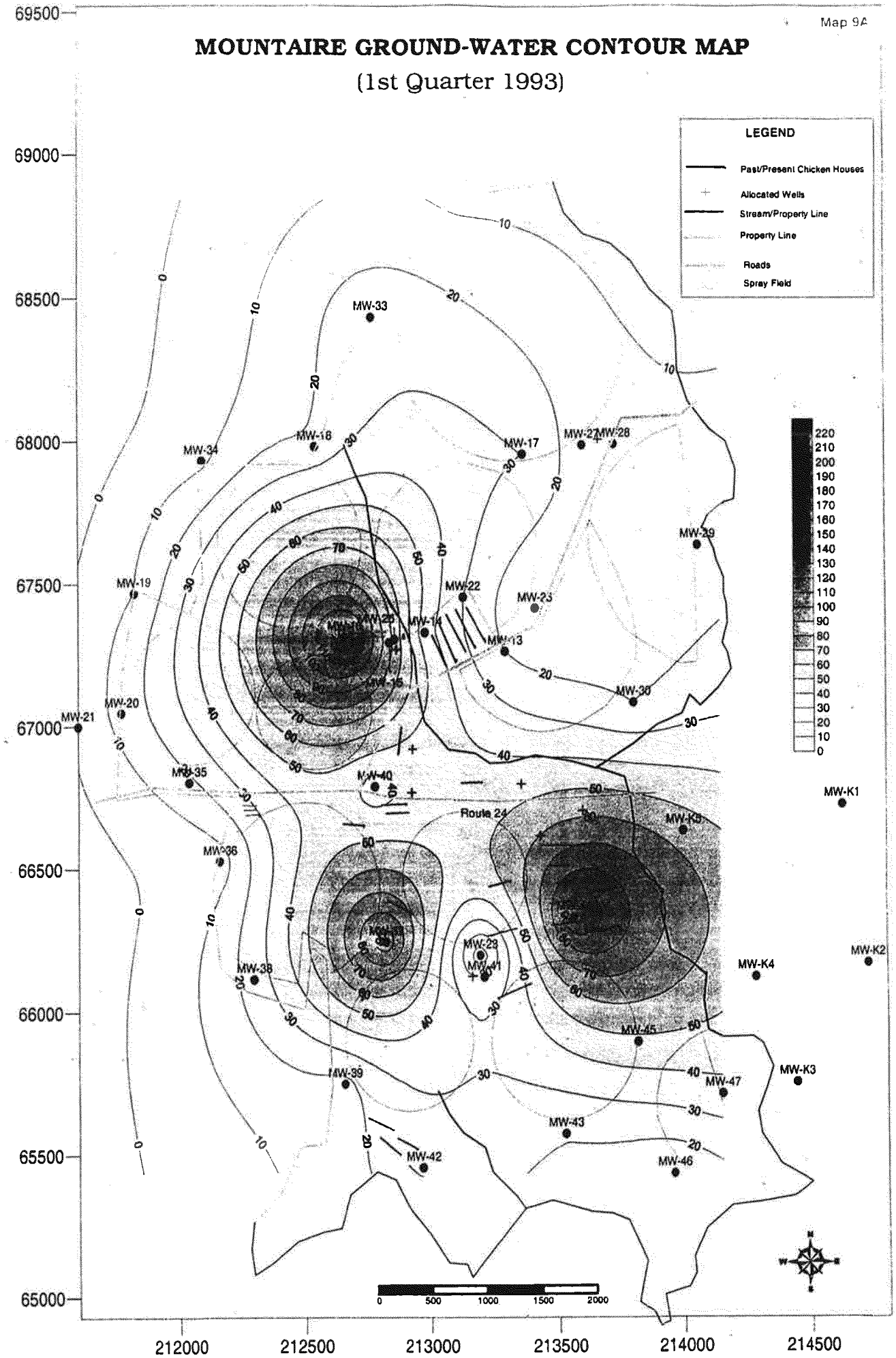

Map 4
MOUNTAIRE GROUND-WATER NITRATE MAP
(3rd Quarter 1991)
LEGEND
Past/Present Chicken Houses
Allocated Wells
Stream/Property Line
Property Line
Roads
Spray Field
69500
69000
68500
68000
67500
67000
66500
66000
65500
65000
MW-33
MW-34
MW-18
MW-17
MW-29
MW-19
MW-22
MW-23
MW-14
MW-13
MW-15
MW-30
MW-20
MW-21
MW-35
MW-40
Route 24
MW-K1
MW-K5
MW-36
MW-44
MW-37
MW-41
MW-K2
MW-K4
MW-38
MW-45
MW-39
MW-47
MW-K3
MW-43
MW-42
MW-46
0
500
1000
1500
2000


Map 5A
MOUNTAIRE GROUND-WATER NITRATE MAP
(4th Quarter 1991)
LEGEND
Past/Present Chicken Houses
Allocated Wells
Stream/Property Line
Property Line
Roads
Spray Field
69500
69000
68500
68000
67500
67000
66500
66000
65500
65000
MW-33
MW-34
MW-18
MW-17
MW-27
MW-28
MW-29
MW-19
MW-22
MW-25
MW-16
MW-14
MW-15
MW-30
MW-20
MW-21
MW-35
MW-40
Route 24
MW-K1
MW-K5
MW-36
MW-44
MW-37
MW-23
MW-41
MW-38
MW-K2
MW-K4
MW-45
MW-K3
MW-47
MW-39
MW-43
MW-42
MW-46
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
0
500
1000
1500
2000

Map 9A

# MOUNTAIRE GROUND-WATER CONTOUR MAP

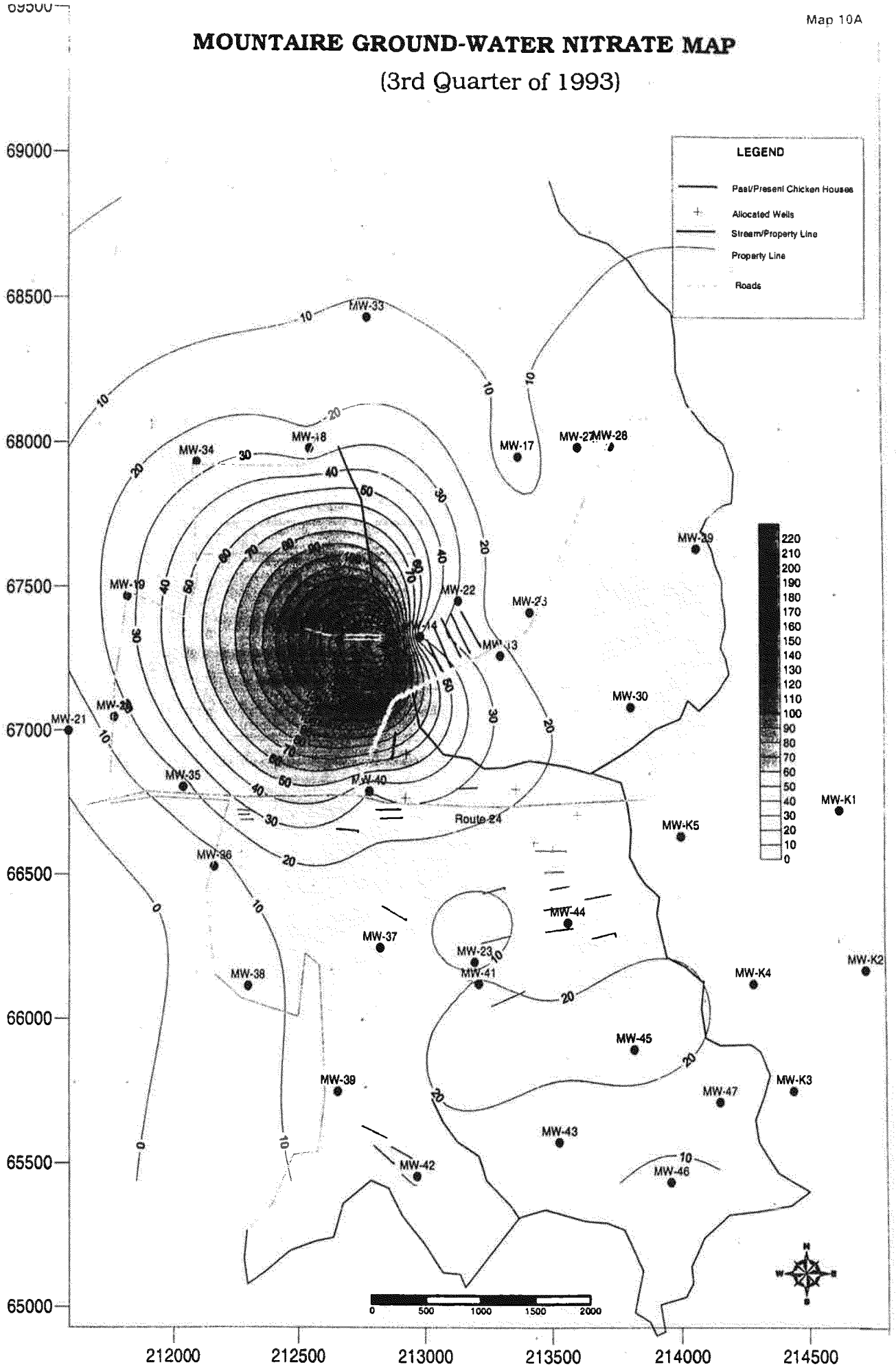
(1st Quarter 1993)



Map 10A

# MOUNTAIRE GROUND-WATER NITRATE MAP

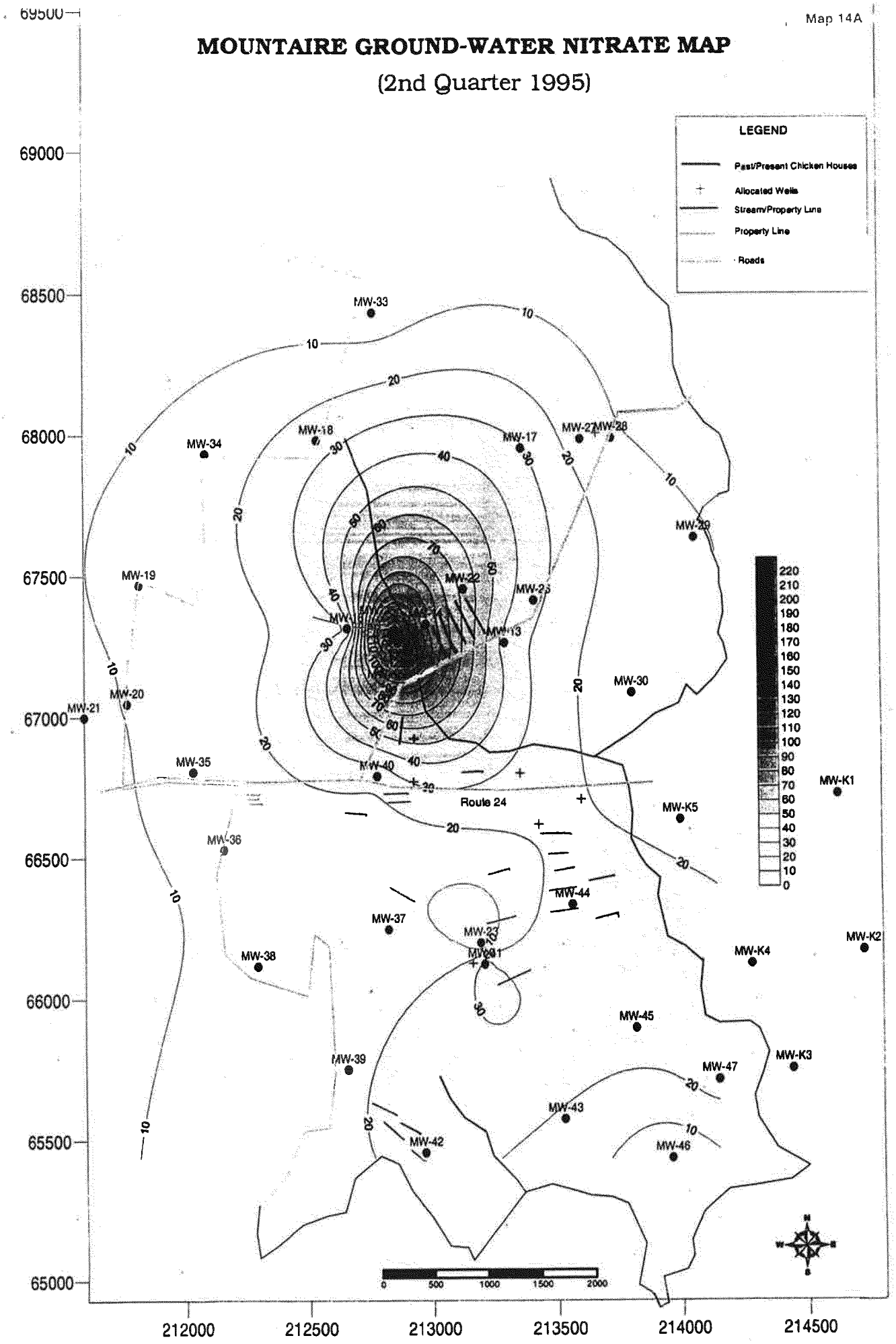
(3rd Quarter of 1993)



Map 14A

# MOUNTAIRE GROUND-WATER NITRATE MAP

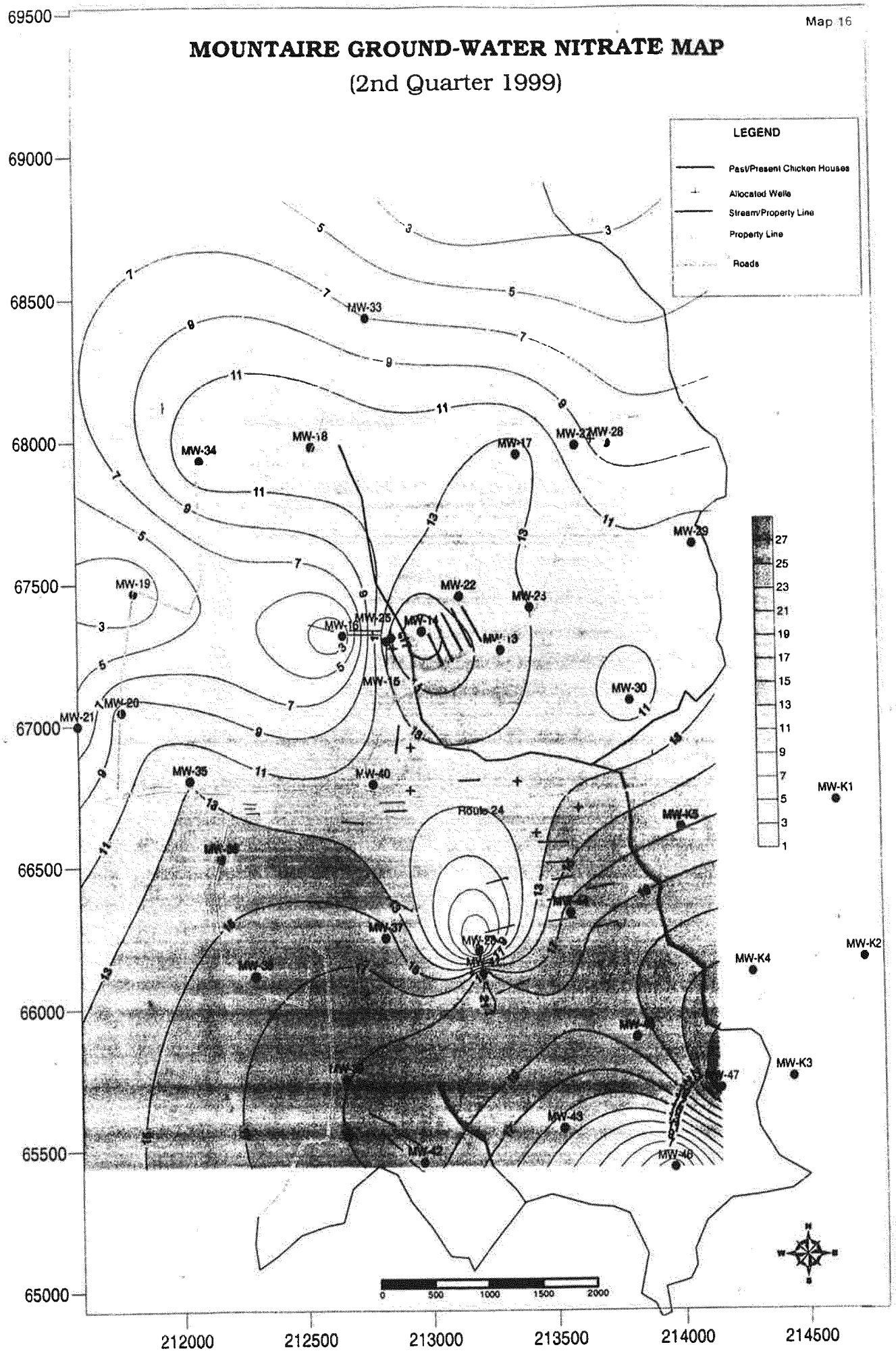
(2nd Quarter 1995)



Map 16

# MOUNTAIRE GROUND-WATER NITRATE MAP

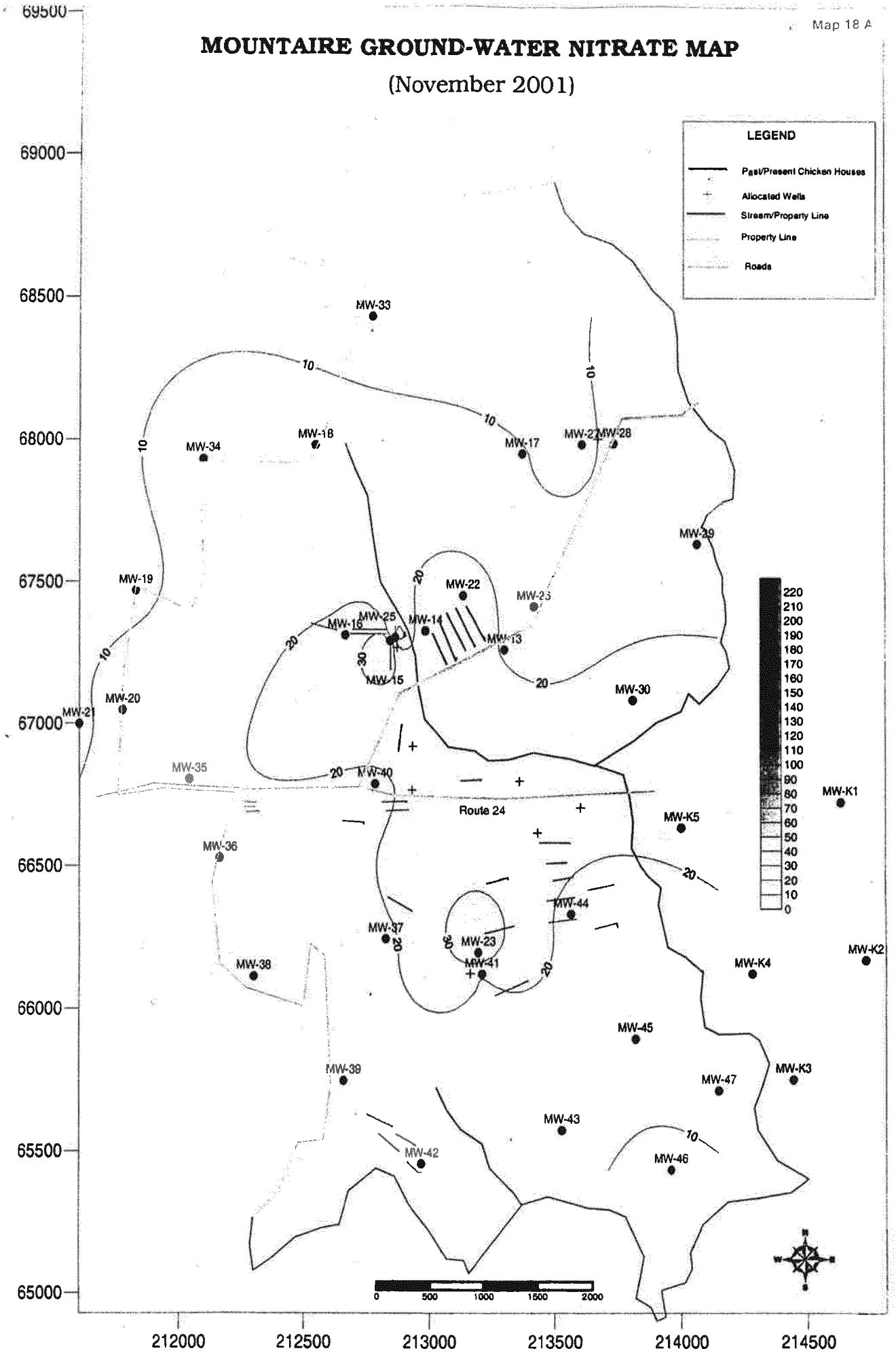
(2nd Quarter 1999)

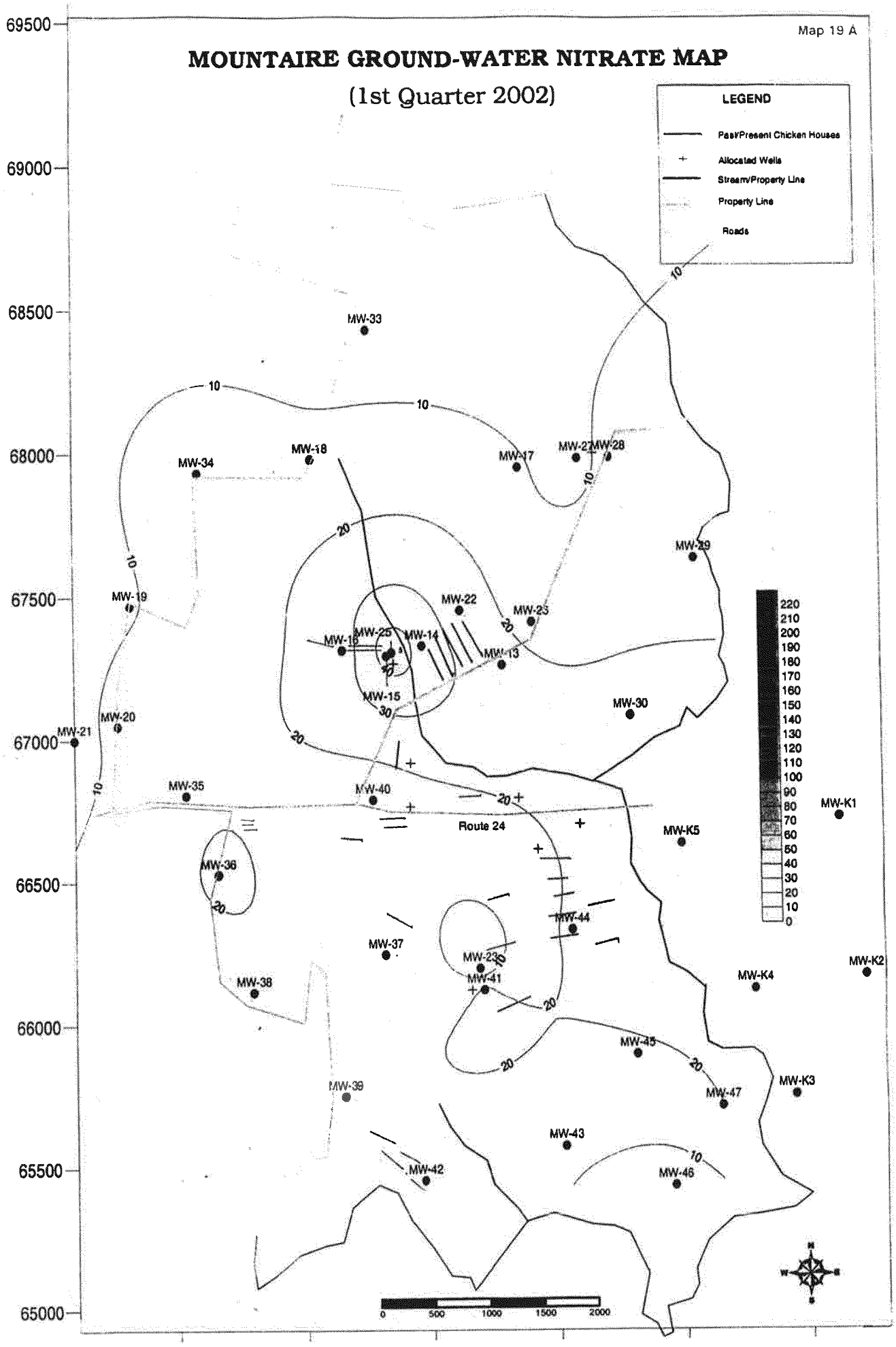


Map 18 A

# MOUNTAIRE GROUND-WATER NITRATE MAP

(November 2001)




Map 19 A
MOUNTAIRE GROUND-WATER NITRATE MAP
(1st Quarter 2002)
LEGEND
Past/Present Chicken Houses
Allocated Wells
Stream/Property Line
Property Line
Roads
69500
69000
68500
68000
67500
67000
66500
66000
65500
65000
MW-33
MW-34
MW-18
MW-17
MW-27
MW-28
MW-29
MW-19
MW-22
MW-23
MW-25
MW-16
MW-14
MW-13
MW-15
MW-30
MW-20
MW-21
MW-35
MW-40
Route 24
MW-K5
MW-K1
MW-36
MW-44
MW-37
MW-23
MW-41
MW-K2
MW-K4
MW-38
MW-45
MW-47
MW-K3
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MW-42
MW-46
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130
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100
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80
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60
50
40
30
20
10
0
0
500
1000
1500
2000

Attachment 3
(Referenced in paragraph 29)

Well Testing Data

Aerial Photo labeled Mountaire Farms indicating Nitrate levels of sampled residences

Mountaire Farms of DE, Inc.
Residential Private Wells
Testing Results

12/17/2002

Ex. 6 - Personal Privacy

| DNREC # | Treatment | Coliform | Nitrate (mg/L) | Comments |
|---|---|---|---|---|
| seucure in box | unknown | absent | 12.7 | |
| 181746 | cartridge w/ carbon | absent | <0.3 | |
| 176527 | unknown | absent | 25.6 | |
| 183508 | unknown | absent | 22 | |
| | none | Not sampled | 18.3 | |
| 179159 | only on kitchen sink | Not sampled | 21.1 | |
| didn't see wellhead | none | Not sampled | 15.7 | |
| | | | 18.4 | |
| didn't see wellhead | none | | 23.5 | |
| didn't see wellhead | none | | 18.9 | |
| didn't see wellhead | none | | 18.9 | |

# Ex. 6 - Personal Privacy

Attachment 4
(Referenced in paragraph 34)

Letter and Attachment from Mountaire Farms to effected residences

Fresh Young Chicken

Dear Homeowner:

This letter is to let you know that recently Mountaire Farms of Delaware Inc. (Mountaire) has been notified that certain water supply sources in the vicinity of Mountaire's Millsboro plant have historically contained levels of nitrate that are somewhat higher than the standards established by the U.S. Environmental Protection Agency (EPA) and the Delaware Department of Public Health (DPH). As a result, Mountaire, EPA and DPH are reviewing the situation to determine what should be done to address the matter. In the meantime, Mountaire, on a voluntary basis is by this letter offering to supply you, free of charge, bottled water in sufficient quantities to meet all potable (drinking) water needs until this matter is resolved. If you want Mountaire to supply such water, please contact me at (302) 934-3094 to make appropriate arrangements. Also, enclosed is some information regarding nitrates and drinking water which you may find useful.

Thank you for your attention.

Yours Truly,

Jeffrey Smith, REM
Environmental Manager
Mountaire Farms Inc.

**Mountaire Farms of Delaware, Inc.**
P.O. Box 1320, Millsboro, Delaware 19966
(302) 934-1100 Toll Free (877) 887-1490

*"We measure quality by how well we service our internal and external customers"*

water tested by an approved laboratory. If there are high levels use bottled water for infants, nursing mothers and expecting women. Do not boil water to remove nitrates. Boiling could make the concentration even higher.

**References.** Brooks, S. M., M. Gochfeld, J. Herzstein, R. J. Jackson and M. B. Schenker. Environmental Medicine, Mosby, St. Louis, MO, 1995.---Talbott, E. O. and G. F. Craun. Environmental Epidemiology. Lewis Pub., Boca Raton, 1995.---Montgomery, J. H. Groundwater Chemicals Field Guide, Lewis Publishers, Chelsea, MI, 1991.---U.S. EPA, Office of Drinking Water, Health Advisory, Washington, DC, 1987.

Doc.#35-05-20/96/05/01 GCL/GY-4-24-96 Assistance Provided by HSP-ODW &CDCP NBCCEDP#U57/CCU3038341-02-3

**Return to:**

Attachment 5
(Referenced in paragraph 38)

Mountaire Ground -Water Nitrate Map (1st Quarter 2002) Map 19A of Attachment 2