

- I-145 8-11, b, line 8, DISAGREE with the proposal. REASON: 45 days is too arbitrary and unreasonable. Reclamation activities are greatly affected by weather, and greater environmental damage could occur if reclamation takes place at the wrong time of year.
- I-146 8-11, 4th para., last line, DELETE parenthetical comment "(known as a Christmas tree)". REASON: The device used in this area is not a "Christmas tree" as commonly known.
- I-147 8-12, 2nd full para., DELETE references concerning visual impacts and camouflage measures for reasons cited earlier.
- I-148 8-12, c, 1st paragraph, DELETE #1-4. REASON: The second paragraph under 'c' goes on to state that these categories do not occur in New York's oil and gas producing region.
- I-149 8-13, sentence beginning on line 8, DELETE sentence. REASON: DEC should not attach permit conditions unless lessor is the State. Otherwise, conditions will be set in the lease agreement.
- I-150 Figure 8.2. QUESTION: Where is the brine tank in this drawing?
- I-151 8-14, 1st full para., line 3,4, & 5, DELETE phrases "and Department staff," and "permit conditions under special circumstances," so that the sentence reads, "However, landowners can restrict the siting of well site facilities through lease conditions." REASON: Distance limitations are established by law and regulation and are the only legitimate regulatory siting restrictions for oil and gas facilities. This is a matter for agreement between the landowner and the operator. The sentence as it reads in the GEIS implies that the DEC will always side with the landowner in private contract negotiation.
- I-152 8-14, E, 1st para., 2nd sentence. AGREE that the "Protection of water quality is the most important concern in regulating oil and gas development." This statement should be included in the Introduction to the GEIS.
- I-153 8-14, E, 2nd para., line 3, DEFINE what is meant by surface water bodies in this context. Is it surface water supply wells?
- I-154 8-15, 1st full para., line 11, CHANGE "well" to "wellsite" and "150" feet to "100 feet". COMMENT: A map showing non-intermittent streams on a 7-1/2 minute topo sheet would be very helpful.
- I-155 8-15, 1st full para. 2nd line from bottom, DELETE public notice and hearing requirements. REASON: This type of waiver is not significant enough to require public notice or hearings. Variance from 660' boundary is an administrative decision.
- I-156 8-16, 2, 2nd para., AGREE with this recommendation if the springs are currently used for domestic water supply.
- I-145 This proposed requirement is not arbitrary; it is keyed to the existing pit reclamation requirements of the current regulations in 6NYCRR Part 554.1(3), and as stated, extensions can be granted by the Regional Minerals Manager for reasonable cause. Reasonable proposed alternatives will be considered during the rulemaking process.
- I-146 The term "Christmas Tree" is defined as the assembly of valves, pipes and fittings used to control the flow of oil and gas from the casing head (Manual of Oil and Gas Terms 6th edition, Williams and Meyers).
- I-147 See Topical Response Number 2 on Visual Resources and Assessment Requirement.
- I-148 This is a listing of the most important visual resources in New York. This listing would not be complete without items 1 through 4.
- I-149 The requirements concerning State Parks, historic sites, etc. are guided by SEQR regulation Part 617.12.
- I-150 This is not a drawing but an actual photograph. This well did not have a brine tank; most wells do, but there are many gas wells that produce negligible amounts of brine. Wells with brine tanks are more common now that blowdown pits have been prohibited. We agree that we should have chosen a well with a brine tank to represent a typical gas well.
- I-151 More is inferred from the cited paragraph than was intended. The special circumstances referred to are circumstances listed under current regulation.
- I-152 Comment noted.
- I-153 "Surface water body" refers to public lakes, streams, rivers, canals, creeks, etc. It does not refer to surface water supply wells.
- I-154 This reasonable counterproposal to the recommended setback restriction will be considered during the rulemaking process.
- I-155 Variances from the 660' setback requirement cannot be granted administratively to private parties. Public hearings are required as stated in 6NYCRR Part 553.4. Municipalities are the only entities that can receive administrative variances.
- I-156 Support for setback restrictions for domestic springs is noted.

- I-157 8-16, 3, last sentence, AGREE that government bodies should compensate full market value of any resource rendered unproduceable by the creation of a buffer zone.
- I-158 8-17, line 3, DEFINE "other sources of pollution" as used in this context.
- I-159 8-17, line 6, ADD "new" before "wells" and "current" before "surface," so the sentence reads, "It is recommended the minimum siting restriction on the proximity of new wells and associated production facilities to current surface municipal water supplies be increased to 150 feet." A waiver of this spacing restriction should be allowed. There should also be a reimbursement clause for access to mineral rights that might be lost if the recommendation is enacted. DEFINE "surface municipal water supplies" as used in this context.
- I-160 8-17, b, line 7, CHANGE "2,640" to "1,000-2,000".
- I-161 8-19, 1st full para., AGREE with casing and cementing permit conditions in aquifers, but believe protection would be improved if any casing below surface casing having contact with the aquifer formations would be cemented with 25% excess cement, rather than being cemented to surface. A sentence could be ADDED to read, "All formation open hole sections shall be cemented." REASON: This change would allow for better abandonment procedures.
- I-162 8-19, 1st full para., line 7, COMMENT: The DEC's policy for grouting down from the surface if circulation is not achieved may not accomplish the DEC's intent. Technical problems associated with grouting may cause more harm than good. Also, DEC needs to develop a better aquifer map on a scale of 1" to 2,000.
- I-163 8-19, 4, line 1, CLARIFY first sentence in this context. What is the difference between a community water system and public water system?
- I-164 8-21, 4th para., line 7. ADD phrase, "under which oil and gas operators must operate," after sentence ending with "drilling permit conditions," so that the sentence will read, "All water wells are protected by the drilling, casing and cementing guidelines and the aquifer permit conditions under which oil and gas operators must operate." IOGA recommends that water well drillers and any other party or operation penetrating aquifers be subject to the same regulations.
- I-165 8-22, 1st full para., line 8, CHANGE to read, "For these reasons, a 100 foot setback from private water wells is recommended unless the water well owner approves a smaller setback. Additionally, the plat accompanying the drilling application should show the location of all private water wells within 1,000 feet of the wellsite as shown on tax maps. If a setback is necessary,
- I-157 See Topical Response Number 1 on Public Taking Without Compensation.
- I-158 The phrase "other sources of pollution" refers to any structure or equipment which could introduce pollutants into surface municipal water supplies.
- I-159 The suggested additions are unnecessary. This chapter is on siting; one cannot site old wells. Waivers of all spacing or siting restrictions are granted for just cause. See Topical Response Number 1 on Public Taking Without Compensation.
- I-160 See response to I-131.
- I-161 We find some merit to this suggested alternative. Reasonable counter-proposals will be considered during the rulemaking process.
- I-162 Comment noted.
- I-163 Both "community" and "non-community" are public water supply systems. Thus, both are included in the definition of "public water supply systems".
- I-164 We agree with the suggested text clarification, and the comment that water well drilling should be regulated.

- compensating variances from boundary lines should be automatically allowed. The DEC will have the authority to grant such setback waivers."
- I-166 8-22, 1st full, para., line 16 beginning with, "It is recommended..." This sentence should be included with the recommendation listed beginning on line 8 (addressed above). The sentence should be CHANGED to read, "It is recommended that DEC approval be required for a waiver of the restrictions proposed for private water wells and springs used as a current domestic water supply."
- I-167 8-24, 2, 2nd para., last line, DELETE "future" and ADD "existing" before "land" so that sentence reads, "However, in many instances access roads can be planned according to existing land use needs."
- I-168 8-25, 3, 2nd para., line 5, AGREE with recommendation that landowner approval be obtained to bury either trash or the drilling pit liner.
- I-169 8-25, 3, 3rd para., line 2. AGREE with the recommendation, but request information on where the safe buffer depth of 4 feet is now specified.
- I-170 8-26, line 5, DEFINE technical data used to substantiate Seneca County Soil and Water Conservation District claim concerning crop yields. (See Attachment #1 entitled, "Impact of One-Time Dormant Season Application of Gas Well Brine to Forest Land.")
- I-171 8-26, line 8, DELETE the proposed recommendation. REASON: This recommendation constitutes inappropriate interference in private contractual matters between landowner and operator.
- I-172 8-26, 1st full para., line 2, sentence beginning with "Brine and oil ..." DELETE this sentence. REASON: Courts have ruled that damage to crops apply to one year's growing season and not to future crops. Further, brine and gas would not affect crop yield for more than one year, and oil would be stripped from the soil by bacterial action.
- I-173 8-26, 4, 1st para., DELETE first paragraph. REASON: The use of the word "suspected" in line 3 makes this a leading statement. Proof should be provided or the whole paragraph deleted.
- I-174 8-27, 5, AGREE completely with this entire section.
- I-175 8-28, 6, DELETE this entire section. REASON: DEC can only intervene as noted in section 5. All statements given in 6 are covered by contract.
- I-176 8-29, COMMENT: Streams should be defined by solid blue lines on USGS survey maps:
- I-165 This is not a reasonable alternative. County tax maps do not usually include water wells.
- I-166 This sentence is a clarification of the above proposal stating that the landowner waiver of the surface restriction should be in writing. The DEC would not waive a setback requirement of this kind without landowner approval.
- I-167 The sentence as written is more appropriate.
- I-168 Support for requiring landowner approval for pitliner or trash burial is noted.
- I-169 A safe buffer depth of four feet was recommended by the Department of Agriculture and Markets, and it is being recommended in the GEIS that four feet be specified as the safe buffer depth. Support for the recommendation is noted.
- I-170 The Seneca County SWCD should be contacted for detailed information on their technical data. The effects of brine application on crop productivity cannot be compared to topsoil loss or burial.
- I-171 See Topical Response Number 7 on Soil as a Public Natural Resource.
- I-172 The information in this paragraph was provided by the Department of Agriculture and Markets. We know that gas would have no adverse impacts, but the associated brine and/or oil can cause serious damage to many crops.
- I-173 The reason for using the word "suspected" is detailed in the paragraph.
- I-174 Comment noted.
- I-175 The DEC can intervene and attach permit conditions only under special circumstances to safeguard specified protected resources (e.g. floodplains, Agricultural Districts, wetlands, etc.) or to avoid or mitigate impacts to significant resources which are not otherwise protected but have been identified during review under SEQOR.
- I-176 Many protected streams are depicted as broken blue lines on USGS survey maps.

- I-177 | 8-30, 2, 1st para., DELETE 1st paragraph. REASON: Impacts are not major, as they are temporary in nature.
- I-178 | 8-30, 2, 2nd para., line 4, DELETE sentence beginning with, "For example,...". REASON: The example is not now relevant as it occurred several years ago and the stream is now clean.
- I-179 | 8-30, 2, 2nd line from bottom of the page. QUESTION: When did the Department start to require that collector lines be buried adjacent to the access road crossing? Please cite regulatory reference for requirement. COMMENT: This may cause increased environmental disturbance due to added pipeline right-of-way.
- I-180 | 8-31, 4, line 6, DELETE phrase beginning with, "...and be obtained from State approved sites." REASON: As long as operators meet permit specifications for fill, the State should not care where it is obtained.
- I-181 | 8-32, H. COMMENT on explanation for this section: The description of what may happen seems to greatly exaggerate what is likely to actually occur.
- I-182 | 8-34, 2, line 3, DELETE sentence beginning with, "Accordingly, conditions..." REASON: Special conditions should generally be covered by the GEIS. Also, DELETE the sentence beginning on line 5. REASON: An EAP will not be submitted with a permit application once the GEIS is final. Environmental information will be made part of the permit application form.
- I-183 | 8-34, 2, 2nd para., line 4, sentence beginning with, "However, a 50 foot....for sedimentation problems." CLARIFY what this sentence means.
- I-184 | 8-35, line 5, sentence beginning with, "This is further..." AGREE, but sentence should be moved to section dealing with proposed recommendations concerning buffer zones.
- I-185 | 8-35, I, 1, line 2, CLARIFY what is meant by "eligible areas" in this context. How are operators to know what constitutes an eligible area?
- I-186 | 8-35, I, 1, 2 para., line 2, sentence beginning with, "In the event...individual circumstances." COMMENT: If well can't be drilled, compensation for loss of mineral revenues at full market value should be required.
- I-187 | 8-35, I, 1, 2nd para., beginning on line 5 through 2nd line on the top of page 8-36, DELETE this section. REASON: Additional permit conditions now exist for these situations.
- I-177 | We agree that "major" is too strong a modifier.
- I-178 | The example given is relevant to the issues discussed in this sentence.
- I-179 | There is no reference to regulation for this requirement. It is sometimes imposed as a permit condition by the Division of Regulatory Affairs under the Stream Disturbance Permit Program.
- I-180 | This is a Stream Disturbance Permit condition which requires that fill be obtained from permitted sand and gravel mines. The State requires that sand and gravel mining be done under permit.
- I-181 | This section addresses the potential impacts of soil erosion and sedimentation.
- I-182 | See Topical Response Number 3 on EAF and Special Site-Specific Permit Conditions. Their occurrence at every site is unlikely.
- I-183 | This sentence means that distance alone is not an adequate indication of the potential for sedimentation problems.
- I-184 | The discussion on page 8-15 includes the effect of topography and vegetation on the adequacy of buffer zones. The sentence addressed by this comment is an appropriate conclusion to the discussion of sedimentation problems.
- I-185 | The Regional Permit Administrator in each DEC regional office has a list of areas eligible for inclusion on the State and Federal Historic Site Lists.
- I-186 | See Topical Response Number 1 on Public Taking Without Compensation.
- I-187 | This illustration of possible permit conditions in historic sites is appropriate in this section.

I-188	8-36, 2, 4th para., COMMENT: The DEC area minerals managers should have an archeological map (scale: 1" to 2,000) that will accurately determine location of archeological sites in order to reduce the costs to oil and gas operators by decreasing the number of archeological studies required to be performed by consultants. IOGA conducted a survey of members after this archeological survey requirement took effect in 1985 which showed that almost \$100,000 had been spent on archeological surveys that uncovered four significant "artifacts".	I-188	Comment noted. See response to I-109.
I-189	8-37, J. Significant Habitats, GENERAL COMMENT on §1 through 3 of this section: If relocation of the wellsite is required and results in loss of mineral recovery, then the operator should be compensated by the State at full market value.	I-189	See Topical Response Number 1 on Public Taking Without Compensation.
I-190	8-39, K. Floodplain. GENERAL COMMENT on the introduction to this Section: We believe that floodplain permit conditions are inappropriately applied to oil and gas operations and that mitigation conditions would be pointless if a flood actually occurred. Floodplain conditions are intended to reduce property damage by excluding housing and other building developments.	I-190	The primary permit conditions imposed on oil and gas operations located in floodplains are restrictions on the time of year drilling can take place (not during flood season) and anchoring requirements for permanent structures. These conditions are designed to prevent environmental impacts and reduce flood damage.
I-191	8-40, 1, Mud or Reserve Pits and 2, Brine and Oil Tanks GENERAL COMMENT on these sections: (See comment immediately above).	I-191	The text of these sections explains the reasons for the required mitigation conditions.
I-192	8-41, 2, 2nd para., 3rd line from bottom of page. DELETE this recommendation. REASON: This proposal is already covered by the federal SPCC (spill prevention control and counter measures) plan. In addition, federal regulations allow other containment measures aside from dikes.	I-192	The substitution of berms or walls for dikes is not excluded. Unless special agreement is made, federal regulations do not supersede or substitute for State regulation. The State does not have authority to enforce federal regulations, and local federal enforcement staff is not usually available.
I-193	8-42, para 2, line 3 & 4, DEFINE what is meant by the phrase "deposited in a suffocating layer" and the term "weathered oil" in this sentence.	I-193	Weathered oil in which the light constituents have evaporated can sometimes sink and suffocate benthic fauna.
I-194	8-43, 1st full para., sentence beginning with, "Completion fluids...." DELETE or provide basis for this sentence.	I-194	See sections 9.H.6. and 7.
I-195	8-43, 4. DELETE section on brush debris. REASON: No other industry is required to comply with such a requirement.	I-195	DEC only regulates floodplain activities in those communities that do not have a local program. Under DEC issued Floodplains Permits, there are brushy debris handling requirements for all activities.
I-196	8-46a, Table 8.1, DEFINE criteria that would satisfy "compelling economic or social need" as described in Class I Wetlands in this table.	I-196	6NYCRR Part 663.5(f)(4)(ii) states "The word 'compelling' implies that the proposed activity carries with it not merely a sense of desirability or urgency, but of actual necessity, that the proposed activity must be done; that it is unavoidable." Recently, the Division of Fish and Wildlife's interpretation of permitting requirements for Class I wetlands has shifted the review emphasis from a demonstration of need to a weighing question based on the magnitude of any unmitigated impacts.
I-197	8-50, Figure 8.7, line 8 of the caption accompanying this photograph, ADD phrase to read "...in a pink Cadillac," after "deer were sighted driving to the well..."	I-197	This sentence should say "About 30 deer were sighted by DEC staff while driving . . ." Under NYSDEC regulations, deer are not permitted to sell Mary Kay cosmetics or drive pink cadillacs.
I-198	8-51, 7, AGREE with first sentence of this section which states that access roads can enhance wetland's value.	I-198	Comment noted.

- I-199 8-52, 8, para 2, DELETE this paragraph. REASON: Situation is irrelevant to GEIS and happened six years ago.
- I-200 8-53, M. State Lands - GENERAL COMMENT on this section: The state should be required to purchase mineral rights at fair market value if drilling cannot take place due to regulations.
- I-201 8-54, 2, 2nd para. COMMENT: IOGA does not object to OPRHP as lead agency for oil and gas drilling activities in state parklands, however, if it is determined that drilling cannot occur in state parklands, then the fair market value of privately held mineral interests should be paid to the owner by the state.
- I-202 8-55, line 3, DELETE statement concerning to scenic resources. REASON: The protection of scenic resources from the temporary nature of drilling operations allows too much discretionary authority. Scenic resources are subjectively established and are inappropriate for consideration by an oil and gas GEIS.
- I-203 8-57, O, 1st para., line 3, PROVIDE a copy of the Type I list referred to in this sentence.
- I-204 8-57, O, 3rd para, line 2, CLARIFY what is meant in this context by the phrase, "...a benefit or threat to public health or safety..."? Also, on line 3 of this paragraph DELETE reference to "aesthetic significance."
- CHAPTER IX. DRILLING PHASE: DRILLING, CASING AND COMPLETION OPERATIONS
- I-205 9-1, A, para 1, line 1, DELETE "access road" and replace with "wellsite".
- I-206 9-1, para 2, line 6, QUESTION: Why is a change recommended from 48 hours to five business days? CLARIFY last sentence of recommendation beginning with, "...through the clerk of the county, city or town..." Who is to be notified? We suggest that the recommendation be CHANGED to read, "Written notification should be required at least five business days prior to the beginning of drilling operations, or verbal notification at least 48 hours prior to the beginning of drilling operations with signed verification of the verbal notification required, and local jurisdictions should be notified through one specified clerk of the county, city or town, whose land will be physically affected."
- I-207 9-1, A, 3rd para., line 4, AGREE with recommendation and that phone notice to the DEC should be verified by a DEC confirmation number given at the time of phone notification.
- I-208 9-1, A, 4th para., line 3, AGREE with recommendation and would

- I-199 This example is illustrative of the damages that can occur as a result of brine discharge into a sensitive wetland habitat. The paragraph further explains that discharges of this nature have not occurred recently.
- I-200 See Topical Response Number 1 on Public Taking Without Compensation.
- I-201 See Topical Response Number 1 on Public Taking Without Compensation.
- I-202 See Topical Response Number 2 on Visual Resources and Assessment Requirement.
- I-203 See SEQR regulations, 6NYCRR Part 617.12, for a complete listing.
- I-204 Local governments designate areas such as inactive hazardous waste sites as Critical Environmental Areas (CEA) because of the threat to public health or safety which could be caused by disturbance. They can also designate their public water supply as a CEA because of the important benefit it provides to public health.
- I-205 See Topical Response Number 4 on Access Roads as Part of Project.
- I-206 Reasonable alternative proposals will be considered during the rulemaking process.
- I-207 Support is noted for our recommendation and the suggestion for a confirmation number has merit.

ADD phrase at the end of the sentence stating, "and if permit is not used, fees are transferrable to a new permit application within 12 months from the date of permit approval."

I-209 9-2, 1, 1st para., line 4, CHANGE "powder", substitute with "grains".

I-210 9-2, 1, 2nd para., line 6, CHANGE "2,000", substitute with "5,000". REASON: Many Oriskany wells were drilled with cable tools rigs to 5,000 feet.

I-211 Figure 9.1, COMMENT: This is not typical of rotary rigs used to drill shallow oil wells.

I-212 9-3, line 1, ADD "excessive" before phrase, "amounts of water are encountered".

I-213 9-3, 1st full para., line 4, CHANGE line 4 to read, "...through salt layers to prevent the salt from dissolving and rapidly enlarging the borehole."

I-214 9-3, 2nd full para., line 4, CHANGE sentence beginning with, "Mud is..." to read, "Mud is also expensive to dispose of properly."

I-215 9-3, 2nd full para., line 8, CHANGE "or" to "and" so line reads, "...needed and used when unusually high formation pressure and volumes are..."

I-216 9-4, 1st para., line 6, CHANGE "small" to "smaller".

I-217 9-4, 1st para., line 11, CHANGE to read, "...production casing" may extend the full length of the well and is used to carry..."

I-218 9-4, 4, GENERAL COMMENT: All contractors are responsible for the safe operations and training of employees. Further, these safety regulations are covered by federal law under OSHA and are not a responsibility of the DEC.

I-219 9-5, 1st full para., line 3, DELETE phrase beginning with "...motivated and retained to become career oil field staff."

I-220 9-5, 2nd full para., line 1 beginning with "Therefore..." should be CHANGED to read, "It is required by federal law that first aid and emergency procedure information be posted in a conspicuous place should these be needed in the case of an accident." DELETE the next sentence and replace with, "Contractors are required by federal law to have the appropriate equipment on site."

I-221 9-5, 3rd full para., CHANGE paragraph to read as follows: "It is advised that employee clothing should be well-fitted (not loose) and include long sleeves and pant legs, and that employees not wear jewelry, that hair be short or tied-back, and safety shoes, hard hats, goggles, face shields for welding, safety glasses and/or hearing protection be worn as needed. Employee protection against falls has been taken into account by having safety belts,

I-208 Support for the recommendation to extend the expiration date of drilling permits to 12 months is noted. Transfer of permit fees is covered by 6NYCRR Part 552.4(a).

I-209 Delete the phrase "to a powder."

I-210 Although many wells in the past have been drilled deeper than 2,000 feet with cable tool rigs, present day economics restrict the use of cable tool rigs to shallower wells as stated in the GEIS.

I-211 Correction noted. However, the majority of wells drilled in New York State at this time are not shallow oil wells.

I-212 The sentence is correct as written. The word "excessive" is intended to modify both "pressure" and "amounts of water."

I-213 The suggested change would not appreciably alter the intent of this sentence.

I-214 The suggested change is correct but it would not appreciably alter the intent of this sentence.

I-215 The suggested change would not appreciably alter the intent of this sentence.

I-216 The suggested substitution of "smaller" for "small" in this sentence would be more technically correct.

I-217 The suggested substitution of "may extend" for "extends" in this sentence would be more technically correct.

I-218 As stated in the response to I-192, federal regulatory agencies usually do not have sufficient local enforcement staff. In addition, OSHA regulations are not comprehensive with respect to drilling rig safety. Many aspects of rig safety, such as blowout prevention equipment guidelines which could have a direct effect on the environment, are left to the states to regulate.

I-219 The suggested removal of this phrase has merit.

I-220 The recommendations in this paragraph are not yet part of the federal (OSHA) requirements.

	lifelines and lanyards of suitable strength to protect them."	I-221	The suggested text changes do not significantly change the intent of this paragraph.
I-222	9-6, 1st full para., line 4, ADD phrase at sentence ending on line 4 to read, "....as specified in OSHA regulations."	I-222	These requirements are not yet specified in OSHA regulations.
I-223	9-6, 1st full para., line 8, ADD sentence at beginning of recommendation to read, "When blowout preventers are used under extraordinary circumstances, the process is for the drilling contractor to make regular operating tests."	I-223	The suggested wording does not significantly change the intent of the recommendation.
I-224	9-7, b, REWRITE this section to coincide with SPCC regs.	I-224	Federal regulations do not supersede or substitute for State regulations as previously stated. In addition, the existing State regulations detailed in this sentence are intentionally more stringent than the federal requirements.
I-225	9-8, 1st para, line 1, QUESTION: What are the new regulations referred to in this sentence? We recommend that line 7 of the recommendation be CHANGED from "one barrel of oil" to "10 barrels of oil in aggregate." The sentence beginning on line 7 should be DELETED as safe operations are already covered by OSHA regulations. The last sentence of the recommendation should be CHANGED to read as follows: "All drilling contractors must be registered in New York State."	I-225	The phrase "New regulations require" should be replaced with the phrase "Article 12 of the Navigation Law requires". With respect to spill and leak notification, reasonable alternative proposals will be considered during the rulemaking process. See response to I-218 with respect to OSHA regulations and rig safety. Change the last sentence to read: "All contractors who drill wells regulated by the Division of Mineral Resources must be registered in New York State."
I-226	9-8, B. 2nd para., ADD phrase at beginning of sentence to read, "Although most conductor casing is driven, when the hole...."		
I-227	9-9, line 6, ADD final sentence at the end of this paragraph to read, "Because of this requirement, conductor strings in primary aquifers are routinely drilled rather than driven."	I-226	The suggested additional clarification is given in the next sentence of the text.
I-228	9-9, 1st full para., line 8, ADD phrase at the end of sentence to read, "...however, grouting from the surface may not accomplish a complete seal between conductor and formation which may cause damage to the aquifer."	I-227	The suggested additional wording is correct.
I-229	9-9, 2nd full para., QUESTION: Are these steps required of water well drillers and others penetrating aquifers?	I-228	Generally, the conductor pipe is not of sufficient length to extend into subsurface aquifers. It is recognized that a complete seal over the entire length of the conductor pipe will probably not be achieved with surface grouting. The primary intent of these requirements is to have a sufficient seal at the surface to prevent penetration of surface contaminants.
I-230	9-9, 3rd full para., line 2, ADD sentence to read, "This occurs only if the conductor hole is drilled and the conductor cemented back to surface."	I-229	The DEC supports regulation of water well drillers; however, legislation to this effect has not yet been passed.
I-231	9-11, line 1, 1st sentence, QUESTION: Under what conditions can surface casing be omitted?	I-230	The suggested addition adds nothing to the intent of this sentence.
I-232	9-11, 2nd full para., 1st sentence, DELETE this sentence. REASON: Inadequate cement jobs can result from poor hole conditions, rather than industry's reliance on a "recipe."	I-231	The circumstances under which this is allowed are detailed in the preceding text on page 9-10.
I-233	9-11, 2nd full para., line 5, CHANGE first part of the sentence beginning on this line to read, "Many New York operators do not practice reciprocating (rotating or moving) the..." and ADD phrase at the end of this sentence to read, "...however, reciprocation and rotation can cause lost circulation during cementing resulting in a poor cement job. The primary purpose of	I-232	This sentence would be more technically correct if worded as follows: "Inadequate cement jobs can result from the use of a standard recipe of cement weights and additives when borehole conditions dictate that special consideration be given to the design of the cement slurry."

- reciprocating and rotating is to remove mud that may be used when drilling. Mud is not commonly used in New York State."
- I-234 | 9-11, 2nd full para., line 10, ADD phrase after the word "used" on this line to read, "...as required by state law."
- I-235 | 9-11, 3rd full para, line 1, ADD phrase after "the rig" to read "...that will disturb the casing..." ADD sentence to this paragraph that reads, "This time is used to service the rig - an activity that will not disturb the cement job."
- I-236 | 9-12, line 3, DELETE phrase "...or during a routine well drilling site inspection." REASON: Logging must be performed in a timely fashion to ensure effective cementing operations.
- I-237 | 9-12, line 12, DELETE sentence beginning on this line and REPLACE with, "This information is given on the well completion form." REASON: The form is already being used.
- I-238 | 9-13, 1st, full para., COMMENT: Grouting may not achieve what is intended by the State. Other states, such as Pennsylvania, have eliminated grouting because of problems associated with the potential to cap in gas, thereby forcing its migration into water supplies in some instances.
- I-239 | 9-13, 1, line 3, ADD new sentence after sentence ending "...February, 1985" to read, "Industry and the state worked cooperatively on developing the new requirements."
- I-240 | 9-13, 1, line 5, DELETE "is published", REPLACE with "is adopted".
- I-241 | 9-13, 1, line 5, CLARIFY statement beginning on this line. What revisions are being referred to - EIS or GEIS?
- I-242 | 9-13, 1, 2nd para., line 6, CHANGE "2,700 psi" to "1,800 psi" REASON: Pipe will be cemented back to surface anyway.
- I-243 | 9-13, 1, bottom of 2nd para., ADD line to read, "The DEC should be required to have an inspector available within eight hours notice."
- I-244 | 9-14, 1st full para, line 2, ADD phrase after "wells" to read, "...for which there are no existing drilling practices regulations,"
- I-245 | 9-14, 2nd full para., last line, ADD phrase at end of sentence to read, "however, since no regulations exist for water well drilling, these problems could result from improper water well drilling and construction."
- I-246 | 9-14, 3rd full para., last line, ADD new sentence after last

- I-233 | Reciprocation is not a standard New York State practice, but it is recommended by many industry experts. We agree that improper reciprocation techniques can cause pressure surges which could result in lost circulation. However, there are many benefits of rotation and reciprocation. While the primary purpose of rotation or reciprocation of pipe may be mud removal, other purposes include improved circulation and reduction in cement channeling.
- I-234 | The casing and cementing guidelines only state that cement baskets shall be installed above major lost circulation zones. See page 9-15.
- I-235 | This suggested addition is correct.
- I-236 | This paragraph is discussing logs that would be run after cementing operations to verify cement top and/or bond. The temperature log would only be effective for a short time after the cementing operations, but a cement bond log can be run at any time.
- I-237 | The suggested change is correct. The new completion form was adopted during the preparation of the GEIS.
- I-238 | Where this situation is likely to occur, the operator should discuss a waiver of this requirement with the Regional Minerals Manager.
- I-239 | Comment noted.
- I-240 | The suggested change is not necessary because reviews are made and approvals are obtained before the final GEIS is published.
- I-241 | The reference is to the GEIS.
- I-242 | Reasonable alternative requirements will be considered during the final rulemaking process.
- I-243 | The State makes every effort to have an inspector available within eight hours.
- I-244 | See response to I-229.
- I-245 | This point is made more appropriately elsewhere in the text. See page 8-22.

	<p>sentence to read, "It is also noted that the implementation of surface casing cementing guidelines with some alterations could be applied to water well drilling operations." REASON: Most contamination of water wells occurs from surface entry.</p>	I-246	See response to I-229.
		I-247	We agree with this comment.
I-247	<p>9-14, Surface Casing Guidelines. COMMENT on this section: The regulations and permit conditions should be equally enforced and complied with in all DEC regions.</p>	I-248	The Department has no time limit for requesting pertinent records or information.
I-248	<p>9-15, last statement after #11 at the bottom of the page, line 1 of final paragraph, ADD the phrase "within five days" so that this line reads, "When requested by the department in writing within five days..."</p>	I-249	The text is correct as written. The suggested addition is limiting in nature.
I-249	<p>9-16, 1st para., line 4, ADD phrase at end of sentence to read "as specified in the GEIS." REASON: The GEIS encompasses those areas requiring special regulations.</p>	I-250	The text is correct as written. The suggested addition would change the intent of the requirement.
I-250	<p>9-16, #12, line 1, ADD the word "design" so that this line reads, "The production casing cement design shall extend..."</p>	I-251	In the stated situation, intermediate casing might be appropriate.
I-251	<p>9-16, #12, line 6, ADD phrase to sentence ending on this line to read, "but as the frontiers in New York State become deeper, this may not be possible, and could be detrimental in deeper producing horizons."</p>	I-252	See response to I-248.
I-252	<p>9-17, 1st para, line 1, ADD phrase "within five days" so that the sentence reads, "When requested by the Department in writing within 5 days..."</p>	I-253	See response to I-249.
I-253	<p>9-17, 2nd para, line 4, ADD phrase at end of sentence to read, "as specified in the GEIS."</p>	I-254	The note is included because it is necessary to follow manufacturer's specifications for minimum hole size to avoid problems such as stuck casing.
I-254	<p>9-17, Note (1): DELETE this note. REASON: The State sets these requirements.</p>	I-255	The suggested change is technically correct. Comment regarding grouting is noted.
I-255	<p>9-18, 1st full para., line 4, CHANGE sentence beginning on this line to read, "Cement will filtrate into permeable zones." COMMENT: This is a reason why grouting is not advisable.</p>	I-256	See response to I-245.
I-256	<p>9-18, 1st full para, line 6, ADD phrase so that sentence beginning on this line reads, "The majority of these situations are temporary and may be due to unregulated water well drilling..."</p>	I-257	This is not a suggested State requirement. Any responsible operator would volunteer to replace the affected landowner's water well in this situation.
I-257	<p>9-18, 1st full para, DELETE last sentence. REASON: Interference in agreements between landowner and operator.</p>	I-258	This is a general description of a blowout. It is not specific to New York.
I-258	<p>9-18, D, line 2 and line 5, DELETE the word "high" in these two sentences.</p>	I-259	The suggested changes alter the intent of the text.
I-259	<p>9-18, D, line 6, DELETE the word "high" and ADD a phrase to read, "but this is not applicable to cable tool rigs."</p>		

- I-260 9-19, 2nd para., lines 1 and 2, ADD the phrase "or screwed" so that these two lines read, "The BOP is flanged and bolted to the spool which is flanged and bolted or screwed to the casinghead. The casinghead is welded or screwed to the top of the surface casing."
- I-261 9-21, 2nd full para, line 7, ADD sentence to read, "Casing grade and weight may not be known on older wells."
- I-262 9-21, 2nd full para., line 7, DELETE recommendation. REASON: The revised drilling permit application form is already being used. COMMENT on the newly revised form: IOGA has proposed some minor revisions to the form (Attachment #2).
- I-263 9-22, E. 1st para., line 2, DELETE sentence beginning on this line. REASON: The statement is too general. Production string size can vary greatly.
- I-264 9-22, 2nd para., line 8, DELETE phrase "and a listing of emergency duties."
- I-265 9-23, 1st full para., line 3, ADD phrase "from the completion zone" after the word "casing." REASON: This further explains current regulations.
- I-266 9-23, 1, 1st para, line 3 of the recommendation, CHANGE word "proposed" to "recommended." On line 4, ADD a phrase so that the end of the sentence reads, "aquifers be cemented from the bottom to the surface." IOGA AGREES with the recommendation as reworded.
- I-267 9-24, 2, 2nd para., line 11, DELETE phrase "under fixed conditions" REASON: This could be confusing and the definition is complete without this phrase.
- I-268 9-24, 2, 3rd para., IOGA AGREES with the DEC's understanding of testing programs.
- I-269 9-24, 2, 3rd para., DELETE this recommendation. REASON: It is standard operating practice. Well testing information is proprietary and well testing programs apply mainly to gas wells and should not be in a general section. Further, well test results are reported on completion reports.
- I-270 9-25, 1st para., lines 1, 2, and 3, REWRITE as follows: "There are open hole completions. Instead of running the full length of the wellbore, the production casing is set above the producing formation." DELETE last three sentences of this paragraph. REASON: Open hole completions are not always the simplest due to plugging back, cement drill outs, etc., and are not always less costly. It is standard industry practice to do this in some areas, however, and it can increase efficiency in recovering the hydrocarbons.
- I-260 We agree. Since screwed connections are allowed in New York, this recommendation should be added to the text.
- I-261 We agree that the casing grade and weight may not be known in some older wells. The suggested change to the text is not appropriate to this section because the overall focus is on new wells.
- I-262 Correction noted. The drilling permit form has been revised to include casing weight and grade.
- I-263 This is the most common size production casing in New York. This statement is true for New York; thus, "In New York" should preface the sentence.
- I-264 The sentence should be corrected to state "A listing of crew member responsibilities for blow-out prevention control must be posted in the dog house by the drilling company."
- I-265 6NYCRR Part 554.4(d) requires sufficient cement behind the production casing to prevent any migration of oil, gas or other fluids behind pipe whether flow be from the production zone or other intervals.
- I-266 The suggested changes would alter the intent of the proposal.
- I-267 Correction noted. The phrase "under fixed conditions" should be deleted.
- I-268 Comment noted.
- I-269 The Regional Minerals Manager must be aware of oil and gas activities in his or her region that have potential for adverse environmental impact.
- I-270 The first two sentences would be more correct if reworded as follows: "Open hole completions are those where the production casing is set just above the producing formation instead of running the full length of the wellbore. Open hole completions can present problems." The last sentence is correct as written.

I-271 9-25, 2nd para., line 1, CHANGE "most" to "some". REASON: Open hole completions have been used routinely in shallow oil wells and a growing number of gas wells.

I-272 9-25, 2nd para., line 7, DELETE phrase "Gas and water" in sentence beginning on this line.

I-273 9-25, 2nd para., line 10, DELETE last sentence in this paragraph. REASON: It is technically incorrect.

I-274 9-26, line 4, CHANGE "every Medina well" to "some Medina wells"

I-275 9-26, line 6, DELETE last sentence. REASON: Very seldom are 100% returns of fluids seen.

I-276 9-26, 1, 2nd para., line 5, CHANGE line to read, "...New York the pressure can range from between 400 to 4,000 psi."

I-277 9-26, 1, 2nd para., line 8, DELETE phrase "in width" in this line.

I-278 9-26, 1, 2nd para., DELETE "once sufficient" and REPLACE with "as".

I-279 9-27, line 4, DELETE sentence beginning on this line. REASON: It is technically incorrect.

I-280 9-27, 1st full para., line 2, DELETE "with coiled tubing and nitrogen" and REPLACE with "by mechanical means." REASON: This is not common practice in New York. Other means are used, such as swabbing, etc.

I-281 9-27, 1st full para., line 5, ADD phrase at end of last sentence to read "and to increase surface area for water injection in a waterflood."

I-282 9-27, 2, 1st para., DELETE this paragraph. REASON: It is not true.

I-283 9-27, 2, 2nd para., line 1, CHANGE first sentence to read, "Foam fracturing systems typically contain only 20 to 40 percent liquid with the remainder being nitrogen."

I-284 9-28, 3, 1st para., line 7, DELETE sentences beginning with "Sometimes this method..." and "Wastes from..." REASON: These situations are already covered by regulations and penalty provisions are in place if they do occur.

I-285 9-28, 3, 1st para., last sentence, DELETE this sentence. REASON: Statement is inflammatory and unwarranted.

I-286 9-29, 1st full para., line 5, DELETE sentence beginning on line 5. REASON: Frac valves are used to control any flowback.

I-271 Although most shallow oil wells are completed open hole, these wells currently represent only 5% of the new well completions. Some new gas wells are also completed open hole, but cased hole completions are more common. Therefore, the sentence starting "In most new wells in New York . . ." is correct.

I-272 These sentences should be reworded as follows: "Gas, oil and water zones can be isolated by selective perforation of the casing as long as adequate cement bond exists between the zones behind pipe. Perforated casing completions . . ."

I-273 Reword as follows: "Since most gas wells in New York must be stimulated to produce, setting casing across the producing zone and perforating is the preferred method of completion. In some areas of the State the open wellbore is so competent that it can be perforated and hydraulically fractured like a cased and cemented well."

I-274 Correction noted. The word "every" should be deleted from this sentence.

I-275 Correction noted. Insert the words "most of" into the sentence before the volume information.

I-276 Discussion in this section concerns typical surface pressures required during stimulation, not absolute stimulation pressure ranges.

I-277 The suggested change is more technically correct.

I-278 Replacing the word "Once" with the word "When" is preferable to replacing it with "As".

I-279 The phrase "back up without a trace" should be deleted.

I-280 The phrase should be reworded as follows: ". . . must be assisted by mechanical means such as swabbing or coiled tubing and nitrogen."

I-281 Addition of the phrase "or for the movement of injected water from the wellbore through the formation" would better convey the information.

I-282 Foam fracs which have gained popularity in recent years can cause gas marketing problems for some New York wells. Wells fractured with foam, which contains nitrogen, will flow back gas containing increased amounts of nitrogen for a period of time. Nitrogen has no heating value, and many pipelines limit the amount of nitrogen they will accept in purchased gas. Recently, marketing problems resulting from nitrogen contamination have been minor.

I-283 The suggested text change is more technically correct.

I-284 A description of possible problems is appropriate.

I-285 We agree the phrase "abrade paint off cars," should be deleted from the last sentence.

I-286 See response to I-284.

- I-287 9-29, 2nd full para., line 2, DELETE phrase "in about 50 percent of the" and REPLACE with "many" REASON: The 50 percent figure is not documented.
- I-288 9-29, G. COMMENT: The definition of "completion" in the regulations and on the completion form is not the same.
- I-289 9-30, 1st full para, line 10, COMMENT: The two sentences in bold print are not new recommendations.
- I-290 9-30, 2nd full para., DISAGREE with the need to implement this recommendation. REASON: These situations are already covered under existing regulation. There is a need for greater guidance in completing the form.
- I-291 9-32, 1st full para., DELETE this recommendation. REASON: Walls with angles of less than 45 degrees could cause problems with fluid loss from the pit, plus a substantial increase in surface disturbance could occur in constructing the pit. If any limitations on angle are made, they should only be made for two walls of the pit. And, as stated, on p. 9-31, "the best type of pit construction will vary with well location."
- I-292 9-32, 3, 1st para, line 6, DELETE sentence beginning on this line. REASON: It is irrelevant due to types of waste fluids. Line should be REPLACED with, "Clay lined pits function adequately for temporary fluid containment."
- I-293 9-32, 3, line 9, DELETE "factory" replace with "effectively".
- I-294 9-33, line 6, COMMENT: IOGA doesn't disagree, but pit size, direction and containment need to be decided on a site-by-site basis.
- I-295 9-33, 1st full para., line 7, IOGA AGREES with this recommendation.
- I-296 9-34, 1st full para., line 1, DELETE first sentence. REASON: It is impractical and unreasonable. Field installation is adequate.
- I-297 9-34, 4, Pitless Drilling. COMMENT: IOGA AGREES that this technique may be desirable and would like to see regulations to allow for this action in other settings as well.
- I-298 9-35, 5, GENERAL COMMENT: Tanks are on site during the drilling phase. There are usually no permanent tanks.
- I-299 9-35, 5, 2nd para., line 4, CHANGE "are required" to "may be required"; line 5, DELETE "all" before the word "permanent".
- I-300 9-35, 5, 2nd para., line 8, IOGA doesn't necessarily disagree, but this may not be the best practice because vegetation keeps dike walls in place.
- I-287 Regional field staff estimated that tanks were used in about 50 percent of the flowback operations. Whether the text states "about 50 percent" or "many" makes no appreciable difference.
- I-288 There is no definition of "completion" on form 85-15-7.
- I-289 It is true that this information has been required for several years, but these requirements have not been formalized into regulations.
- I-290 Submissions of specific suggestions for better guidance in completing the form will be reviewed. This sentence recognizes that the regulation exists, but states non-compliance is a problem.
- I-291 Low-angle pit walls are not being recommended for every well. The commentators should submit information to DEC substantiating their claim. Reasonable alternative proposals will be considered during the rulemaking process.
- I-292 The adequacy of a clay-lined pit for containing brine depends on the chemical nature of brine and clay used. Calcium chloride brines in particular can cause permeability problems in pits lined with a clay which contains sodium ions. Clay lined pits can also react chemically with any acidic wastes.
- I-293 Manufacturer information gathered by this Department indicated that factory installed seams were the most effective. Reasonable alternative proposals will be considered during the rulemaking process.
- I-294 This recommendation does not preclude site-specific determination of pit requirements.
- I-295 Support for the proposed minimum pit liner standards is noted.
- I-296 See response to I-293.
- I-297 Support for additional regulations allowing pitless drilling is noted. Reasonable additions to existing and proposed regulations will be considered during the rulemaking process.
- I-298 Comment noted.
- I-299 The current regulations in 6NYCRR Part 556.4(c) state "When it is deemed necessary by the Department for the protection of life, health, or property, the Department may require any lease or other oil storage tanks be surrounded by an earthen dike . . ." The Department deems diked oil tanks necessary where an oil spill would result in contamination of surface and groundwaters. Therefore, this sentence is correct as written.
- I-300 The sentence that the space within the dike must be kept free of vegetation, not the dikes themselves, was taken directly from the existing regulations (6NYCRR Part 556.4(c)). Reasonable revisions to these regulations will be considered during the rulemaking process.

I-301 | 9-36, b, 2nd para., line 4, DELETE "chromium" REASON: It not used in drilling muds in New York State.

I-302 | 9-37, d, 2nd para., line 1, CHANGE "all" to "some".

I-303 | 9-38, 1st full para., line 1, CHANGE line to read, "Some produced fluids from the shallow Devonian shales can have barium levels from..."; line 3, CHANGE sentence beginning on this line to read, "The produced fluids from the Medina sand can have..." REASON: Chemical characteristics of various formations are not the same, can vary from location to location, and will not help general permit effort.

I-304 | 9-38, 2nd full para., line 1, DELETE this sentence. REASON: It is irrelevant to the section on the drilling phase of operations.

I-305 | 9-39, a, 3rd para., COMMENT: AGREE with this paragraph.

I-306 | 9-41, d, 1st para., 2nd last line, DEFINE "sufficient quantity and long period of time." What quantity? What period of time?

I-307 | Table 9.2 DELETE Column C and source reference. REASON: It is irrelevant. No values are given.

I-308 | 9-44, 8, 2nd para., line 2, ADD sentence to read, "Dual permitting requirements under state and federal guidelines make the procedure for actually placing a disposal injection well in operation a very long (years) and expensive proposition.

CHAPTER X - WELL COMPLETION AND PRODUCTION PRACTICES

I-309 | 10-1, B, Recommendation beginning on last line: DEFINE what is meant by "partial restoration" in this context.

I-310 | 10-2, 1, lines 1 and 2. DELETE references to Christmas tree. REASON: Term as commonly applied does not cover equipment used in New York State.

I-311 | 10-4, Formula. COMMENT: Should be in a top to bottom and left to right order.

I-312 | 10-6, Produced Brine. COMMENT: DEC fails to make the distinction between blow boxes and flow-through separation pits associated with SPDES permits.

I-313 | 10-6, Produced Brine, line 7, ADD phrase to sentence ending on this line to read, "but this does not apply to flow-through separation pits associated with SPDES permits and/or lined temporary brine storage ponds."

I-314 | 10-6, Produced Brine, line 7, DELETE sentence beginning on this

I-301 | The GEIS recognizes that drilling mud is rarely used in New York. However, were drilling mud to be used chromium ligno-sulfonate, a common mud conditioning additive, might be used in non-aquifer areas.

I-302 | The word "most" should be inserted in place of the word "all".

I-303 | Correction noted. The word "can" should be added to these two sentences.

I-304 | Correction noted.

I-305 | Comment noted.

I-306 | Sufficient quantity and length of time needed for a substance to pose an environmental threat would depend on site-specific conditions and the substance composition.

I-307 | Comment noted. This table was taken as published in the Upstate Groundwater Management Plan.

I-308 | The suggested addition would be more appropriate in Chapter 15.

I-309 | Partial restoration means restoration of that portion of the site not needed for production. Full restoration would occur only after plugging and abandonment.

I-310 | See response to I-146.

I-311 | Comment noted.

I-312 | This section applies only to gas wells. Flow-through separation pits are associated with oil production.

I-313 | The suggested additional wording is not necessary as this section clearly applies to producing gas wells. The term "brine blowbox" or "brine blowdown pit" should have been used instead of the term "brine disposal pit."

	line. REASON: Blowboxes are no longer authorized as of June 1987.	I-314	Blowboxes are no longer authorized. Enforcement action is currently being taken against those operators who have not complied with the blowbox or blowpit elimination order.
I-315	10-7, line 2 ADD phrase so that end of sentence on this line reads, "may increase or decrease up to five barrels a day."		
I-316	10-7, 2, 2nd para., line 4, DELETE "the" so that sentence beginning on this line reads, "Paraffin clogs in small underground plastic flow lines..." REASON: Most flow lines are steel.	I-315	Correction noted. The sentence should read, "As the well gets older the volume of brine may increase or decrease."
I-317	10-7, 2, 3rd para., line 3, DELETE phrase starting with "stock tank" to the end of the sentence and REPLACE with "specialized separation vessels for separating oil and water."	I-316	Correction noted. The sentence should read "Paraffin clogs in the small flow lines have also been known to cause the lines to rupture or leak."
I-318	10-8, sentence beginning on line 4, COMMENT: This would be a rare occurrence.	I-317	The suggested wording is technically correct.
		I-318	Comment noted.
I-319	10-9, line 4, DELETE rest of paragraph beginning in bold print on line 4 through the end of the paragraph. REASON: Current regulations allow for fines to be imposed if these situations occur and the special permit conditions could encourage discriminatory practices against operators. In addition, well tenders monitor wells in New York State.	I-319	As part of the current administrative enforcement process, an operator who consistently had this problem could be given a choice between paying a stiff fine or installing automatic shut down equipment. Such permit conditions might be appropriate mitigation for a wellsite in a sensitive wetland. These actions in either case are not discriminatory.
I-320	10-9, 1st full para., COMMENT: The statements made in this paragraph seem to contradict theory on page 10-10, paragraph 3.	I-320	The referenced sections do not contradict each other.
I-321	10-10, 3rd para., line 9, QUESTION: Are these numbers correct? The concentrations are very small to have an environmental impact.	I-321	This discussion deals with the concentrations of pollutants that could inhibit microbe metabolism, not the concentrations which would have environmental impact.
I-322	10-11, Produced Brine, line 6, ADD sentence before recommendation to read, "In addition, some produced brine is disposed of in municipal wastewater treatment facilities or brine injection wells."	I-322	The suggested addition is appropriate.
I-323	10-11, Produced Brine, line 6, COMMENT on recommendation: New York State does not have a large commercial facility for brine disposal or oilfield waste materials. Further, prior to drilling, an operator doesn't know the quantity of brine to be encountered or if any brine will be encountered. In any event, an approved plan is required for disposal - why must this must done in advance?	I-323	A conscientious operator will plan in advance for waste handling and disposal.
		I-324	Reasonable alternative proposals will be considered during the rulemaking process.
I-324	10-12, line 1, CHANGE "150'" to "100'".		
I-325	10-12, 3, GENERAL COMMENT. The Bass Island production regulations have not necessarily prevented waste. The production allowables and required pressure testing have, in fact, decreased and, in some cases, stopped production. The industry has pointed out that the reservoir is a fault fracture, and not matrix. Therefore, matrix production gas/oil ratios are not applicable		

and are not necessarily prudent production practice. The State has the Bass Island reservoir listed as a fracture reservoir on the Oil and Gas Map and on 1985 and 1986 production reports. State pressure testing and pooling have further indicated linear fracture reservoirs. IOGA believes production regulations should now be updated to conform with testing and production results.

I-325 Comment noted.

I-326 10-12, 3, 1st para., line 4, DELETE phrase beginning on this line with "whether the operator...practices", REPLACE with "reservoir drive mechanism."

I-326 The suggested change would alter the intent of this section on production reports and conservation of resources. The intent of the sentence was to state that the gas-oil ratio is one indication of prudent production practices.

I-327 10-12, 3, 2nd para., line 2, CHANGE regulatory reference from "556.8" to "554.8".

I-327 Correction noted; change "556.8" to "554.8".

I-328 10-12, 3, 2nd para., line 7, DISAGREE with recommendation. IOGA feels that proper enforcement of existing regulations should suffice, but suggests that wording of recommendation be changed as follows:

"For this reason, it is recommended that a notice of intention be required for any operation that will in any manner alter the casing, permanent configuration, or designated use and status of a well. It is not the intention of this recommendation to require a permit for routine well servicing. Notification will be required for the following action:

- To perforate casing in a previously unperforated interval for the purpose of production and injection in existing zone
- To mill out or remove casing or liner
- To run and cement casing or tubing
- To drill out any type of permanent plug

Permits may be required for the following actions:

- To redrill or deepen any well
- To set any type of permanent plug (bridge, cement, sand, gravel, gel, etc.

No notification is required for the following actions:

- To run and set an inner string or casing or liner
- To run and cement an inner string of casing, liner or tubing
- To repair damaged casing by means of cementing, or by placing a casing patch, swaging, etc.

REASON for deleting "possible permit" in recommendation: time frame for permit application procedures would not be conducive to responsible operations and these activities are inconsequential environmental actions. Further, it could significantly increase the paperwork burden on operators. The notice of intention should suffice.