



U.S. Department  
of Transportation  
**National Highway  
Traffic Safety  
Administration**

MAY 9 2013

1200 New Jersey Avenue SE.  
Washington, DC 20590

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. David Geiger  
Regulatory Affairs Specialist  
Porsche Cars North America, Inc.  
980 Hammond Drive, Suite 1000  
Atlanta, GA 30328

NVS-213 swm  
PE13-009

Dear Mr. Geiger:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened Preliminary Evaluation PE13-009 to investigate allegations of catastrophic engine coolant leakage in certain model year (MY) 2001 through 2007 Porsche 911 vehicles manufactured by Porsche Cars North America, Inc. (Porsche), and to request certain information.

This office has received 19 reports of catastrophic engine coolant leakage in MY 2001 through 2007 Porsche 911 vehicles, including 12 reports describing incidents occurring Porsche Club of America type track events. Most of the complainants identify the source of the leakage as one of several coolant pipes used as inlet and outlet hose fittings for coolant system components. The pipes are inserted into cast parts and bonded by an epoxy adhesive. When the adhesive bonds fail, the pipes may separate from the cooling system with the hoses attached and cause sudden catastrophic loss of engine cooling and spill/spray coolant onto the rear tires and the roadway, possibly resulting in loss of control by the incident vehicle or trailing traffic. Additionally some complainants allege that the failures occur without prior warning from a low coolant indicator to the driver. ODI has identified 14 complaints alleging a loss of control resulting from a coolant pipe failure, including 6 alleging crashes or road departure incidents. A copy of each of the reports has been previously provided to you.

Unless otherwise stated in the text, the following definitions apply to these information requests:

- **Subject vehicles:** all MY 2001 through 2007 Porsche 911 models manufactured for sale or lease in the United States or federalized territories.
- **Peer vehicles:** all MY 2008 through 2011 Porsche 911 models manufactured for sale or lease in the United States or federalized territories.



- **Subject components:** all press fit and glued coolant pipes used as inlet or outlet hose fittings in the cooling systems of the subject and peer vehicles.
- **Porsche:** Porsche Cars North America, Inc., Porsche Automobil Holding SE, Dr. Ing. h.c. F. Porsche AG, all of their past and present officers and employees, whether assigned to their principal offices or any of their field or other locations, including all of their divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of Porsche (including all business units and persons previously referred to), who are or, in or after January 1, 2000, were involved in any way with any of the following related to the alleged defect in the subject vehicles:
  - a. Design, engineering, analysis, modification or production (e.g. quality control);
  - b. Testing, assessment or evaluation;
  - c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or
  - d. Communication to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers.
- **Alleged defect:** Separation of one or more coolant pipe inserts, resulting in coolant leakage or, any allegation of compromised vehicle control resulting from leaked coolant on tires or road surfaces.
- **Document:** "Document(s)" is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whatsoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memoranda, correspondence, communications, electronic mail (e-mail) messages (existing in hard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex messages, notes, annotations, working papers, drafts, minutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual displays, photographs, statements, interviews, opinions, reports, newspaper articles, studies, analyses, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-builts, changes, manuals, publications, work schedules, journals, statistical data, desk, portable and computer calendars, appointment books, diaries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, pleadings, discovery in any form, affidavits, motions, responses to discovery, all transcripts, administrative filings and all mechanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floppy disks, backup tapes, and zip drives, electronic communications, including but not limited

to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by Porsche, any other data compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document which contains any note, comment, addition, deletion, insertion, annotation, or otherwise comprises a non-identical copy of another document shall be treated as a separate document subject to production. In all cases where original and any non-identical copies are not available, "document(s)" also means any identical copies of the original and all non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in color must be provided in color. Furnish all documents whether verified by Porsche or not. If a document is not in the English language, provide both the original document and an English translation of the document.

- **Other Terms:** To the extent that they are used in these information requests, the terms "claim," "consumer complaint," "dealer field report," "field report," "fire," "fleet," "good will," "make," "model," "model year," "notice," "property damage," "property damage claim," "rollover," "type," "warranty," "warranty adjustment," and "warranty claim," whether used in singular or in plural form, have the same meaning as found in 49 CFR 579.4.

In order for my staff to evaluate the alleged defect, certain information is required. Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. Insofar as Porsche has previously provided a document to ODI, Porsche may produce it again or identify the document, the document submission to ODI in which it was included and the precise location in that submission where the document is located. When documents are produced, the documents shall be produced in an identified, organized manner that corresponds with the organization of this information request letter (including all individual requests and subparts). When documents are produced and the documents would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbatim above each response. After Porsche's response to each request, identify the source of the information and indicate the last date the information was gathered.

1. State, by engine/cooling system, model and model year, the number of subject and peer vehicles Porsche has manufactured for sale or lease in the United States and federalized territories. Separately, for each subject and peer vehicle manufactured to date by Porsche, state the following:
  - a. Vehicle identification number (VIN);
  - b. Make;
  - c. Model;
  - d. Platform designation (e.g., 996 or 997);
  - e. Model Year;
  - f. Engine;
  - g. Date of manufacture;
  - h. Date warranty coverage commenced; and

- i. The State in the United States (or federalized territory) where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Microsoft Access 2010, or a compatible format, entitled "PRODUCTION DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

2. State, by model and model year, the number of subject and peer vehicles Porsche has manufactured for sale or lease in the United States and federalized territories for which Porsche sold an extended service plan. Separately, for each vehicle, state the following (if a vehicle had more than one plan, such as a maintenance plan and an extended service repair plan, then list the vehicle separately for each plan that it had):
  - a. Vehicle identification number (VIN);
  - b. Make;
  - c. Model;
  - d. Model Year;
  - e. Name of the extended service plan;
  - f. The mileage at which the extended service plan expires; and
  - g. The number of months from the warranty start date at which the extended service plan expires.

Provide the table in Microsoft 2010, or a compatible format, entitled "EXTENDED SERVICE PLAN DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

3. State the number of each of the following, received by Porsche, or of which Porsche is otherwise aware, which relate to, or may relate to, the alleged defect in the subject and peer vehicles:
  - a. Consumer complaints, including those from fleet operators;
  - b. Field reports, including dealer field reports;
  - c. Reports from the Porsche Club of America Inc.;
  - d. Reports involving a crash, injury or fatality;
  - e. Property damage claims; and
  - f. Third-party arbitration proceedings where Porsche is or was a party to the arbitration; and
  - g. Lawsuits, both pending and closed, in which Porsche is or was a defendant or codefendant.

For subparts "a" through "e" state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items "d" through "g" provide a summary description of the alleged problem and causal and contributing factors and Porsche's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "f" and "g" identify the parties to

the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

4. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 3, state the following information:
  - a. Porsche's file number or other identifier used;
  - b. The category of the item, as identified in Request No. 3 (i.e., consumer complaint, field report, etc.);
  - c. Vehicle owner or fleet/club name (and fleet/club contact person), address, and telephone number;
  - d. Vehicle's VIN;
  - e. Vehicle's make, model and model year;
  - f. Vehicle's mileage at time of incident;
  - g. Incident date;
  - h. Report or claim date;
  - i. Whether a crash is alleged;
  - j. Whether property damage is alleged;
  - k. Number of alleged injuries, if any; and
  - l. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "COMPLAINT DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

5. Produce copies of all documents related to each item within the scope of Request No. 3. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Porsche used for organizing the documents.
6. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Porsche to date that relate to, or may relate to, repairs of loose, leaking or separated subject components in the subject and peer vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

Separately, for each such claim, state the following information:

- a. Porsche's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. Repair date;
- e. Vehicle mileage at time of repair;
- f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- g. Labor operation number;
- h. Problem code;
- i. Replacement part number(s) and description(s);

- j. Whether there is a related claim for towing (any towing claim filed with a week of the cooling system repair date);
- k. Concern stated by customer; and
- l. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "WARRANTY DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

7. Describe in detail the search criteria used by Porsche to identify the claims identified in response to Request No. 6, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject and peer vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by Porsche on the subject and peer vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that Porsche offered for the subject and peer vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty. Also indicate which plans, if any, would cover the subject component.
8. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject and peer vehicles, that Porsche has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that Porsche is planning to issue within the next 120 days.
9. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject and peer vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Porsche. For each such action, provide the following information:
  - a. Action title or identifier;
  - b. The actual or planned start date;
  - c. The actual or expected end date;
  - d. Brief summary of the subject and objective of the action;
  - e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
  - f. A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

10. Describe all modifications or changes made by, or on behalf of, Porsche in the design, material composition, manufacture, quality control, supply, or installation of the subject components, from initial design and development to date, which relate to, or may relate to, the alleged defect. For each such modification or change, provide the following information:
  - a. The date or approximate date on which the modification or change was incorporated into vehicle production;
  - b. A detailed description of the modification or change;
  - c. The reason(s) for the modification or change;
  - d. The part number(s) (service and engineering) of the original component;
  - e. The part number(s) (service and engineering) of the modified component;
  - f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
  - g. When the modified component was made available as a service component; and
  - h. Whether the modified component can be interchanged with earlier production components.

Also, provide the above information for any modification or change that Porsche is aware of which may be incorporated into vehicle production within the next 120 days.

11. Provide the following information regarding the subject vehicles:
  - a. Copies of all New Car Limited Warranty & Customer Information booklets;
  - b. A representative copy of an Owner's Manual for a subject vehicle;
  - c. Copies of all Porsche owner literature or communications related to advice or warnings when driving on race circuits, sports driving schools or club sports events (such as detailed via the Internet in the Porsche iManuals: How-To Information for Porsche Owners webpages for the subject vehicles; and
  - d. A summary of advertising or promotion done by Porsche that would indicate to consumers that the subject vehicles are "race track ready," "ready to push the limits" or can be used as-is in performance events (e.g., Sports Driving School, Club Sports Events, etc.) such as is found at [www.porsche.com/microsite/911-gt3/usa.aspx?ws=1](http://www.porsche.com/microsite/911-gt3/usa.aspx?ws=1).
12. Provide the following information regarding each cooling systems used in the subject and peer vehicles:
  - a. Provide a block diagram of the cooling system showing all major components, the flow paths in each operating mode and each subject component (appropriately named/described and numbered);
  - b. A vehicle diagram showing the location of the cooling system components and each subject component (using numbering from 12.a) relative to other vehicle components (e.g., rear tires, alternator, power steering pump, engine, etc.);
  - c. Coolant capacity;
  - d. Design maximum coolant temperature;
  - e. Provide a table showing coolant temperatures at each of the subject coolant pipe fittings under normal and severe duty driving conditions (i.e., conditions that would produce the highest cooling system temperatures) and the corresponding gauge temperature for each condition; state all conditions/assumptions for each, including ambient temperatures and all operating conditions/duty cycle;

- f. Describe, and provide photographs of, all system gauges, warning lamps and messages associated with the cooling system, including normal operating range for the gauge and the conditions required for each warning/message; and
- g. Describe, and provide copies of all reports relating to, all testing performed by Porsche to validate the subject component adhesive bonds both for severe use conditions and long term durability (state all test conditions used for each).

13. Provide the following information regarding the subject components:

- a. One sample each of a water pump housing with subject pipe fittings assembled (i.e., glued in place) and a pre-assembled water pumps housing and associated pipe fittings (i.e., not glued in place);
- b. Identify and describe each bonding agent used in the assembly and/or repair of the subject components, by supplier, product name and product serial number and provide the following additional information for each:
  - i) Copies of all Porsche specifications; and
  - ii) Copies of all product literature and material data sheets;
- c. Also identify by make, model and model year, any other vehicles of which Porsche is aware that contain the identical coolant pipe connection method (adhesive), whether installed in production or in service, and state the applicable dates of production or service usage;
- d. State the material compositions of the subject coolant pipes and each of the respective mating housings;
- e. State the dimensional specifications for each of the subject coolant pipes and each of the respective mating housings; and
- f. State the thermal expansion coefficients for of the subject coolant pipes and each of the respective mating housings.

14. Provide the following information regarding the alleged defect:

- a. The causal or contributory factor(s);
- b. The failure mechanism(s) and the effects of temperature and age on failure of the adhesive joints;
- c. Porsche's assessment of which pipe fittings are most likely to fail the earliest in life based on the mechanism and factors identified in 14.a ad 14.b;
- d. Porsche's assessment of the relatively frequency of actual failures by coolant pipe fitting and all sources of data used for this assessment;
- e. Copies of all service procedures for repairing loose or separated coolant pipe fittings joined by epoxy or other bonding material;
- f. State whether Porsche believes all subject coolant pipe fittings should be serviced (i.e., removed and reinstalled) when the first fails or that each fitting should only be repaired after exhibiting signs of failure;
- g. Describe any survey/testing performed by, or for, Porsche, or of which Porsche is otherwise aware, to assess the condition of adhesive bonds in non-failed pipe fittings in vehicles experiencing a first or second failure of subject coolant pipe fitting, or in any subject or peer vehicles with no evidence of subject component failure;



- h. For the three pipe fittings with the highest failure likelihoods and/or frequencies (from 14.c and/or 14.d), provide field return samples of failed parts (separated pipe fitting and associated housing); and
  - i. Provide one sample of each kit that has been released, or developed, by Porsche for use in service repairs to the subject component/assembly which relate, or may relate, to the alleged defect in the subject and peer vehicles.
15. State the number of each of the following that Porsche has sold that may be used in the subject and peer vehicles and peer by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used and month/year of sale (including the cut-off date for sales, if applicable):
- a. Subject components; and
  - b. Any kits that have been released, or developed, by Porsche for use in service repairs to the subject components.

For each component part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number). Also identify by make, model and model year, any other vehicles of which Porsche is aware that contain the identical coolant pipe connection method (adhesive), whether installed in production or in service, and state the applicable dates of production or service usage.

16. Furnish Porsche's assessment of the effects of the alleged defect on the handling and stability of: (a) the incident vehicle caused by coolant wetting of one or both rear tires; and (b) oncoming traffic caused by changes in road friction caused by spilled coolant in the subject and peer vehicles, including:
- a. Porsche's estimate of the maximum amount of coolant that can leak from each hose fitting;
  - b. For each fitting, the likelihood of leaked coolant contacting one or both rear tires;
  - c. The effects of leaked coolant on tire traction in the incident vehicle;
  - d. The effects of spilled coolant on road safety for oncoming traffic;
  - e. The risk to motor vehicle safety that it poses;
  - f. What warnings, if any, the operator and operators of trailing vehicles would have that the alleged defect was occurring or subject component was malfunctioning; and
  - g. The reports included with this inquiry.

### **Legal Authority for This Request**

This letter is being sent to Porsche pursuant to 49 U.S.C. § 30166, which authorizes NHTSA to conduct any investigation that may be necessary to enforce Chapter 301 of Title 49 and to request reports and the production of things. It constitutes a new request for information.

### **Civil Penalties**

Porsche's failure to respond promptly and fully to this letter could subject Porsche to civil penalties pursuant to 49 U.S.C. § 30165 or lead to an action for injunctive relief pursuant to 49 U.S.C. § 30163. (Other remedies and sanctions are available as well.) The Vehicle Safety Act, as

amended, 49 U.S.C. § 30165(b), provides for civil penalties of up to \$7,000 per day, with a maximum of \$17,350,000 for a related series of violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. *See* 49 CFR 578.6 (as amended by 77 Fed. Reg. 70710 (November 27, 2012)). This includes failing to respond completely to ODI information requests.

If Porsche cannot respond to any specific request or subpart(s) thereof, please state the reason why it is unable to do so. If on the basis of attorney-client, attorney work product, or other privilege, Porsche does not submit one or more requested documents or items of information in response to this information request, Porsche must provide a privilege log identifying each document or item withheld, and stating the date, subject or title, the name and position of the person(s) from, and the person(s) to whom it was sent, and the name and position of any other recipient (to include all carbon copies or blind carbon copies), the nature of that information or material, and the basis for the claim of privilege and why that privilege applies.

### **Confidential Business Information**

**All business confidential information must be submitted directly to the Office of Chief Counsel as described in the following paragraph and should not be sent to this office.** In addition, do not submit any business confidential information in the body of the letter submitted to this office. Please refer to PE13-009 in Porsche's response to this letter and in any confidentiality request submitted to the Office of Chief Counsel.

If Porsche claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C. § 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, Porsche must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, as amended, to the Office of Chief Counsel (NCC-111), National Highway Traffic Safety Administration, Room W41-227, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. Porsche is required to **submit two copies of the documents containing allegedly confidential information (except only one copy of blueprints) and one copy of the documents from which information claimed to be confidential has been deleted.** Please remember that the phrase "ENTIRE PAGE CONFIDENTIAL BUSINESS INFORMATION" or "CONTAINS CONFIDENTIAL BUSINESS INFORMATION" (as appropriate) must appear at the top of each page containing information claimed to be confidential, and the information must be clearly identified in accordance with 49 CFR 512.6. If you submit a request for confidentiality for all or part of your response to this IR, that is in an electronic format (e.g., CD-ROM), your request and associated submission must conform to the new requirements in NHTSA's Confidential Business Information Rule regarding submissions in electronic formats. *See* 49 CFR 512.6(c) (as amended by 72 Fed. Reg. 59434 (October 19, 2007)).

If you have any questions regarding submission of a request for confidential treatment, contact Otto Matheke, Senior Attorney, Office of Chief Counsel at [otto.matheke@dot.gov](mailto:otto.matheke@dot.gov) or (202) 366-5253.

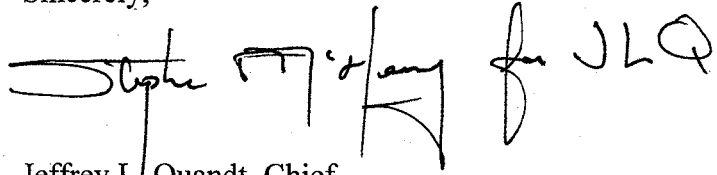
**Due Date**

Porsche's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by July 11, 2013. If Porsche finds that it is unable to provide all of the information requested within the time allotted, Porsche must request an extension from me at (202) 366-5207 no later than five business days before the response due date. If Porsche is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information Porsche then has available, even if an extension has been granted.

Please send email notification to Stephen McHenry at [stephen.mchenry@dot.gov](mailto:stephen.mchenry@dot.gov) and to [ODI\\_IRresponse@dot.gov](mailto:ODI_IRresponse@dot.gov) when Porsche sends its response to this office and indicate whether there is confidential information as part of Porsche's response.

If you have any technical questions concerning this matter, please call Stephen McHenry of my staff at (202) 366-4883.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen McHenry for JLQ". The signature is stylized and includes a large "JLQ" at the end.

Jeffrey L. Quandt, Chief  
Vehicle Control Division  
Office of Defects Investigation

Enclosure 1, one CD-ROM titled Data Collection Disc containing four Microsoft Access database template files and electronic copies of the subject reports referenced above in the second paragraph of this letter identified by the following ODI reference numbers: 10510442, 10510346, 10510343, 10510337, 10510232, 10510206, 10510191, 10510187, 10510138, 10510137, 10510113, 10509416, 10509344, 10509200, 10509136, 10509008, 10508991, 10508950, 10508886, 10508852, 10508818, 10508439, 10508415, 10499809, 10492870, 10450233, 10447857, 10433654, 10416818, 10401601, 10379946.