Summary of changes introduced in the revised version of the paper:

V.Pujalte, J.I. Baceta, and B. Schmitz – A massive input of coarse-grained siliciclastics in the Pyrenean Basin during the PETM: the missing ingredient of a coeval abrupt change in hydrological regime

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In addition to the revised version of our contribution, we were asked by the Copernicus Publications Editorial Support to submit: (1) “a marked-up manuscript version showing the changes introduced”, and (2) “a point-by-point reply to the comments”.

Because of the substantial changes required by the Editor and by one of the reviewers marked-up manuscript would be difficult to compose (and probably to decipher). Instead, we summarized below the main changes introduced in the revised version.

The Editor comments/suggestions were:

The main problems with the manuscript are that (A) it does not properly place the work into proper and larger context, and (B) it is disorganized structurally**.**

(A) The current Introduction, discussion and conclusion give almost zero insight to most readers. A much better Introduction (over 2.5 double space pages) would come with a broader perspective.

Ultimately, you want something like:
1. Introduction (
2. Background/General setting
3. Data set and Methods
4. Results
5. Discussion (regional, and then at the end, global)
6. Conclusions

<u>The structure of the original version was:</u>

1. Introduction
2. Data set and methods
3. General setting
4. The P–E interval in the inner platform domain
    - 4.1. Description of key sections
        - 4.1.1 Korres section
        - 4.1.2 Laminoria and Villalain sections
    - 4.2 Age model for the Laminoria and Korres clastic units
    - 4.3 Creation, evolution and filling of the incised valleys
5 Paleocene deposits in the deep-water Basque Basin
    - 5.1 The deep-sea channel: architecture and evolution

5.2 The PETM interval at the Orio section
6 Discussion
7 Conclusions

The structure of the revised version is:

1 Introduction
2 Setting and background information
2.1 Paleogeography
2.2 Main P–E marine reference sections of the Pyrenees
3 Data set and methods
4 Results
4.1 The P–E interval in the inner carbonate platform
4.1.1 Korres section
4.1.2 Laminoria and Villalain sections
4.2. Paleocene deposits in the Basque Basin
4.2.1 The deep-sea channel: architecture and evolution
4.2.1 The P–E interval at the Orio section
4.3. Stable isotope and clay minerals data from Laminoria and Korres
4.4. Stable isotope and clay minerals data from the Orio section
5 Discussion
5.1 Age models
5.2 Evolution of the incised valleys across the P–E interval
5.3 Changes in the deep-sea channel across the P–E interval
5.4 The PETM kaolinite influx
5.5 The PETM hydrologic change
6 Conclusions

As the request of the Editor, a new extended introduction has been composed, intended to give insight to potential readers on the PETM event and its possible effect on the hydrology cycle globally and in the Pyrenees.

In his point B Editor states that:

The structure of the manuscript is awkward [because] much of the current Introduction should be merged with the current section 3 into section 2…. section 2 “Data set and methods” should come after the background (above) not before … Results and discussion blend across current sections 4, 5, and 6. This needs to be rewritten so as to make clear. I point out that it is not so much the writing at the sentence level, but that the basic sections do not flow together correctly.

In the new version Data set and methods (point 3) come after the background (point 2).

The new Result and Discussion sections have been reorganized: the former now includes descriptive data, the latter interpretations. It should be noted that the the new version includes new isotopic and clay mineralogy data Orio

Modifications Referees comments/suggestions

Referee B. S. Slotnick insisted that the new sections described in the paper should be correlated with other well-dated sections of the Pyrenees. With point 2.2 (Main P–E marine reference sections of the Pyrenees) and new Figure 2 we have tried to provide the necessary background info for that purpose

At the request of the referee a new table (Table 1) is included in the new version, which contains the numerical results from the carbon organic isotopes from Orio. The numerical data from Laminoria are included in Figure 11.

The referee qualifies many phrases of the original version as awkward, poorly written, run-on, overly verbose, badly worded, poor word choice, bad descriptive term etc. We have carefully considered every one of these phrases and tried, to the best of our ability, to improve them.

Palaeo-word (e.g., palaeocurrents, Palaeogene, etc) are now written as Paleo-.

Comments about ‘economic interest’ and similar have been deleted.

A personal communication, however, has been retained, as this is the only source of information about some aspect of the Laminoria quarry.

Lists are considered by the reviewer as unsuitable for scientific writing, and have been avoided.

Referee F. Quesnel pointed out several typos in the original version, which have been amended. We have also included some of the references that she recommended.