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From the Editorial Board

The editorial board while working on the fourteenth edition of the *Theory and Practice of Forensic Examinations and Criminalistics* Journal, used the traditional subject headings: It includes the materials that deal with contemporary problems of criminalistics, solving general issues of forensic examination theory, organization and normative legal regulation of forensic expert activity as well as the sections which consist of works revealing theoretical and practical problems of individual classes, kinds, types and subtypes of forensic examinations. The issues of expert practice are singled out into respective subsections of the main rubrics. The preparation of the articles for the journal was carried out with the participation of the representatives of forensic expert institutions, higher educational establishments, and law enforcement agencies not only from Ukraine but also from abroad. The journal also includes the materials containing the information on international scientific and practical conferences and the seminar on the problems of criminalistics and forensic examination as well as on the anniversary of Yaroslav Mudryi National Law University.

We express our heartfelt gratitude to all the authors who submitted the materials for the journal as well as to the specialists that participated in its publication, and we invite scientists and practitioners to participate in the preparation of articles for the next edition.

FEATURES OF ORDERING AND CONDUCTING LINGUISTIC STUDIES WITHIN WRITTEN SPEECH EXAMINATION

The main aspects in ordering and conducting linguistic studies within written speech examinations are considered. According to the articles of the Criminal and Civil Codes of Ukraine and the competence of authorologist experts the paper gives an approximate list of questions that can be solved by them in this field of study.

Keywords: linguistic study, expert's competence, appeal, information, assessment, threat.

The expert practice shows that the last year saw an increase in ordering linguistic studies conducted by state expert institutions within authorological examinations, namely by experts with signature rights in speciality 1.2. «Written speech examination». As this type of researches is relatively new, there is a row of misunderstanding in relation to the features of their ordering and conducting. Therefore the authors of this paper have a purpose to remove these shortcomings and facilitate the collaboration of bodies which appoint examinations, and the specialists who conduct execute them.

Main aspects in the process of ordering linguistic studies are correct preparation of the materials for the research and clear posing of questions that should be solved by an expert.

Concerning the features of performing of the analyzed type of researches, the main point is here a decision of limits of expert's competence.

The materials for research are both the printed texts and texts of the verbal language, written in digital carriers (compact disks, flash-cards and hard disks of computers). In the last case along with the examination of the writing speech it is necessary to order video-, audio expertise to obtain information from digital carries.

If the investigated text is printed in press (magazine or newspaper) and also in a book, it is necessary to give for the research the complete copy of this edition certified by an investigator or a judge. Concerning the texts published in the Internet, it is necessary to give for the research the complete digital copy of the page (pages) with the investigated text including illustrations (at their presence) or printout of this page (pages) certified by an investigator or a judge with pointing of the moment when an extraction was made.

Texts of verbal speech (addresses on mass meetings, conferences; interviews, speeches and others like) can be also subject of linguistic expertise. They should be given in the form of recording on a digital carrier, but in this case one needs to appoint complex forensic criminalistic examination of video, audio recording and forensic authorological examination. An expert in the field of researches on video and audio recordings will perform a verbatim record of the investigated texts, and a specialist in researches on the written speech will resolve linguistic tasks only.

Sometimes investigators quote the text to be investigated, in the very questions. Such variant is possible and from one side it facilitates the expert's task. On the other hand, the text torn off from contextual surroundings can lose a row of senses.

It is necessary to remember, that the best results from the conducted examination will be received if an expert task is correctly and clearly set forth. Therefore it is necessary to specify the research object in detail (if it is the article in the press – to specify the article title, author, from which words it starts and ends; if it is a verbal speech – to specify the speaker as the person and how is he presented (or appears to be imagined) as, for example, Sydorenko, or as a person who looks like Sydorenko). Let's notice that in the case when the investigation is interested not in the whole text but in concrete phrases (sentence, word-combination) in it then it is necessary to specify which one phrases in the text needs to be examined by a linguist, it will considerably simplify an expert task and will allow to shorten the time of performing expertise.

The practice of performing linguistic researches shows that most difficult and the most important is understanding by bodies which appoint examinations, and by experts namely, what questions may be answered by an expert. It is explained by the fact that linguistic studies in Ukraine are on the stage of forming, that is why in the methodical recommendations to the Instruction about ordering and conducting forensic examinations and expert studies, ratified by the order of the Ministry of Justice of Ukraine from October, 08, 1998 No. 53/5 (with changes and amendments), the complete list of questions which are resolved within the framework of very linguistic researches, is absent. Therefore our task will be to formulate the questions proceeding from the aim of the research.

As of today, expertise in the field of researches on the writing speech are most often ordered in the materials of criminal proceedings initiated by part 2 or part 3 of the article 109, article 110 and article 295 the Criminal Code of Ukraine. In the dispositions of the articles that

are contained in the special part of the Criminal Code there is the list of actions which are crimes. The help of specialists in sphere of the writing speech is needed when disclosing crimes related exactly to the speech activity of a human. In the articles indicated above such forbidden actions are «appeals to overthrow the constitutional system» or «appeals to seizure the state power», «appeals to change the limits of the territory or the state boundary of Ukraine», «appeals to pogroms, fire-raising, elimination of property» and others like that.

The correctness of the set forth questions largely depends on the notion «expert's competence». An expert's competence is a range of questions to which he has a right to resolve on the basis of the special knowledge. Otherwise speaking, it is the scope of the special knowledge sufficient for the decision of certain range of tasks that makes up the content of the given kind, type (subtype) of forensic expertise. This totality of scientific knowledge is envisaged by standards on the basis of which a qualification commission examines and assigns the expert with the qualification on the concrete type of forensic examination¹. For the decision by the expertise it is necessary to set the questions which do not overrun the scope of expert's competence.

The main thing that should be remembered both by an investigator and an expert is that in accordance with the article 242 of Criminal Procedural Code of Ukraine and with part 2.3. of the Instruction on ordering and conducting forensic examinations and expert studies, ratified by the order of Ministry of Justice of Ukraine from October, 08, 1998 № 53/5 (with changes and additions), an expert has no right to decide the matters that touch interpretation of legal questions. Except that, coming from the content of the notion «expert's competence», an expert can not decide the matters that are outside of his special knowledge and belong to other spheres of science or technique.

Thus an expert has no right to establish if there are «appeals to overthrow the constitutional system» or «appeals to seizure the state power», «appeals to change the limits of the territory or the state boundary of Ukraine», «appeals to pogroms, fire-raising, elimination of property» and others like in a certain text (verbal or written) because the latter are the legal signs of the crime composition the ascertainment of which exceptionally belongs to the competence of the investigation and court bodies.

¹Тапалова Р. Б. О содержании понятия «компетенция судебного эксперта» / Р. Б. Тапалова// Теория и практика судебной экспертизы в современных условиях :матер. 4-й междунар. науч.-практ.конф., Москва, 30-31 янв. 2013г. –М.: Проспект, 2013.–С. 291.

An expert in the field researches on the written speech can only set forth linguistic categories that are the basis of the above-mentioned concepts. In this case the task of an expert-linguist is to clarify whether the available information in the text, expressed in form of an appeal, is present.

Except that, an expert can specify the phrases (fragment of the text or the whole text) expressed in the form of appeal, to explain keywords, to define the character (public / not public), form of expression (direct / indirect), type (inclusive / exclusive) and their genre form (appeal-slogan, appeal-address, appeal-proclamation, etc.).

The questions put on resolving for the expert-linguist may be as following:

- Are there expressions expressed in the form of appeals to any actions in the text (to cite the text, the words of its beginning and others like that) given on research?
- If so, then in which one sentences (phrases) are there such appeals, to which namely action do they incite to? By which lexical means are they expressed?
- What character and forms do have such appeals?

Linguistic expertise are also ordered after the article 161 and after part 2 of the article 110 of the Criminal Code of Ukraine, in the basis of dispositions of which there are incitements of enmity and hatred by various features: national, social, religious; humiliation of national honour and dignity; insult of feelings of citizens in connection with their religious persuasions or establishment of direct or indirect privileges of citizens on the signs of their race, colour of skin, political, religious and other persuasions, sex, disability, ethnic and social origin, property state, residence, on language or other signs.

A notion of «incitement of national and religious enmity» from the linguistic point of view includes a message of negative character concerning certain social group which is defined on the signs of nationality and religious persuasions; critical expressions about such group or it's separate representatives that contain a negative judgement, underline confrontations between the social sectors of society, inciting hatred and enmity².

²Яковлева С.В. Психолого-лингвистический анализ структуры деструктивного воздействия текстов в комплексных экспертизах при расследовании преступлений, связанных с экстремистской деятельностью/С. В. Яковлева // Актуальные вопросы комплексной судебной психолого-лингвистической экспертизы: матер.междунар. науч.-практ.конф. «Восток-Запад: партнёрство в судебной экспертизе», Калининград, 5-7 мая 2009 г. – Калининград, 2009. – С. 106.

Thus, proceeding from the content of the articles and from the above-mentioned, let us put an approximate list of questions which may be posed for experts-linguists under article 161 and part 2 of article 110 of the Criminal Code of Ukraine:

- Are there expressions which contain negative information (negative judgement) about certain social group of the citizens united by general nationality, religion, ethnic origin, social state, gender and others like? If so, then in which sentences (word-combinations, phrases), by which lexical means are there expressed such information, what concretely social group does it touch?

- Are there the expressions in the text that contain disrespectful (invective, abusive) vocabulary which is used (describes, characterizes) regarding a certain group of people united by general nationality (to specify the text, the words of its beginning and end, etc.)? If so, then in which sentences (word-combinations) is such a vocabulary?

- Are there the expressions about natural advantages of certain social group in the text (to specify the text, the words of its beginning and end, etc.)? If so, then in which sentences (phrases, word-combinations) is such vocabulary available?

- Are there the expressions about inferiority of certain social group in the investigated text (to point text, words of his beginning and completion and others like that)? If so, then in which sentences (phrases, word-combinations) are they and by which lexical means is this information given?

If in the Criminal Code of Ukraine the object of the criminal activity is a social group – a certain circle of citizens, then in the Civil Code of Ukraine the object of the lawbreaking is a physical or legal person, and disputes for the resolving of which the expertise in the field of researching written speech are mostly appointed concern the issues of protecting honour, dignity and business reputation (part 1 of the article 94, article 297 of the Civil Code of Ukraine).

Inasmuch as notions «honour», «dignity» and «business reputation» belong to the legal categories, an expert-linguist answer can answer to the following questions on the indicated above articles:

- Are there in the text, given for research, the expressions which contain negative information or severe negative evaluation of certain (physical or legal) person or his (it's) activity (to specify the text, the words of its beginning and end, etc.)? If so, then in which

sentences (phrases, word-combinations) are they and by which lexical means is this information given?

- Are there contained negative characteristics of a certain person (legal or physical) or his (it's) activity, expressed by means of unmentionable (abusive, invective) vocabulary in the text (to specify the text, the words of its beginning and end, etc.), given for the research?

- Is there information about a certain person (legal or physical) or about activity of this person in the text given for the research? If so, then in which sentences (phrases, word-combinations) and which character and forms of expressing this information are there?

It is worth noticing that clarification of truthfulness of information presented in the investigated text, as well as ascertainment whether this information humiliates honour, dignity and business reputation of a person, exceeds the limits of an expert-linguist's competence, and are the prerogatives of the court³.

The last category which we would like to consider in this paper and in the relation to which the expertise are often ordered in the field of researches on the written speech, is a category «threat». In this case the criminal proceedings are instituted after part 2 of the article 161 and after part 3 of the article 342 of Criminal Code of Ukraine.

An expert-linguist can not ascertain if the threat, brought to light in the investigated text, will be realized as well as he can not clarify how this threat influenced upon an intended recipient addressee (upon whom, who is threatened). But clarification of the near fact of availability of utterances (sentences), expressed in form of a threat in the text, belongs to the competence of an expert in the field of written speech.

Thus, the issues to be resolved by an expertise of the written speech on cases instituted after part 2 of the article 161 and after part 3 of the article 342 of Criminal Code of Ukraine may be as follows:

- Are there the sentences expressed in the form of a threat in the text, given for research (to specify the text, the words of its beginning and end, etc.)? If so, then in which namely sentences (expressions, phrases) are they and by which lexical means are they expressed?

- Is it a threat by violence?

³Полкунова Е. В. Особенности проведения судебной психолого-лингвистической экспертизы / Е. В. Полкунова// Актуальные вопросы комплексной судебной психолого-лингвистической экспертизы: матер.международ. науч.-практ. конф. «Восток-Запад: партнёрство в судебной экспертизе», Калининград, 5-7 мая 2009 г. – Калининград, 2009. – С. 91.

Having considered the most widespread cases of ordering linguistic expertise of written speech, having paid attention to the features of formalizing materials and posing questions, proceeding from an expert-linguist competence, we hope to facilitation of collaboration between experts and bodies of investigation and court.

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INFLUENCE OF THE CHANGE IN THE GAS CONDENSATE COMPONENT COMPOSITION ON THE COMPARATIVE STUDY RESULTS

The tendency of change in the gas condensate component composition from the same oil well that lasted for a and long period of time, studied. The distribution of component content and physical-chemical parameters depending mining time is determined. The influence of non-standard sampling on the component content and properties of gas condensate is brought to life. The recommendations for packing gas condensate samples that are sent for the study in the expert institutions, is proposed.

Keywords: gas condensates, gas-liquid chromatography, fractional composition, density, taking samples, comparative study.

Comparative study of gas condensates (GCon) has large significance when carrying out forensic investigation of oil products in the cases related with stealing of gas condensate from pipelines for its further processing into fuels in handicraft conditions. Stages of identification research of oil products, fuels and lubricants include sequential determination of generic and group identity as well as belongingness of compared samples to the single whole (same volume).

Generalizing existing definitions, it is worth to mention such basic provisions.

1. Common generic belongingness of oil products is determined in the condition of belongingness to the same type of substance that is defined by identical qualitative component composition, by the nature of quantitative component composition and similar physical-chemical parameters.

2. Common group belongingness signifies belongingness of objects to the one narrow group of oil products that has identical qualitative component composition. It is considered that different oil products can not have the same qualitative component composition⁴ because it does not necessarily indicate on the origin of comparative samples from one container since they can belong to the same lot.

3. If comparable samples contain random extrinsic admixtures that characterize defined tank it is possible to make a conclusion that these samples was taken from the same tank.

In practice, identification is usually being interrupted on the stage of definition of the same group identity because random admixtures can be detected quite rarely in oil products. In addition comparison of natural hydrocarbon mixtures taken from pipelines even on group identity level is a quite complicated task. Composition of *GCon* changes and depends on production conditions and other factors concerning the well of the same oilfield.

Tendency of change of component composition and properties GCon with the course of time

Accepting that *gas condensate* is sampled for forensic investigation not only from special tanks, but also from illegal penetration in pipelines during stealing, component composition of samples can be changed under such a condition:

- a) changing technique in taking samples;
- b) using different equipment units;
- c) changes of ambient conditions (temperature, pressure, moisture);
- d) changes in production regime that cause changes the amount *GCon* contained in gas.

In order to determine the dynamics of change of composition and properties of *GCon*, 7 samples of *GCon* of Ostroverhivske oilfield from the same well (the same horizon of sampling) was investigated. Sampling occurred during one year from April till November (7 samples, numbered as No.1-7) with interval in 1 or 2 month. All gathered data is shown in tables 1-3.

The character of distribution of density and fractional composition is shown on diagrams 1, 2.

⁴See: Гордон Б. Е. Количественный структурно-групповой анализ малых количеств нефтепродуктов по спектрам поглощения в ультрафиолетовой и инфракрасной областях при судебной экспертизе: методическое пособие для экспертов / Б. Е. Гордон, Т. Г. Мелюшко. — М.: ВНИИСЭ, 1979. — 99 с.

Table 1.Density and fractional composition of objects No.1–7

Parameter	ObjectNo, month of sampling						
	1	2	3	4	5	6	7
	April	May	June	August	September	October	November
Density (20°C), kg/m ³	785	785	793	793	791	795	790
Fractional composition, temperature of selection, °C: overpoint	48	56	64	62	71	62	56
10 %	87	88	94	91	95	90	89
30 %	108	109	113	112	114	113	113
50 %	129	131	136	136	139	139	137
70 %	179	180	192	195	200	200	198
90 %	300	304	319	336	326	332	339
end boiling point	365	368	375	370	373	374	372

Table 2.Component composition of objects No.1–7

Component	Object No., % of peak area						
	1	2	3	4	5	6	7
	April	May	June	August	September	October	November
C ₃ (n-alkane)	0,40	0,29	0,069	0,14	0,019	0,11	0,47
C ₄	1,56	1,39	0,13	0,97	0,43	0,91	1,45
C ₅	2,42	2,36	1,78	1,93	1,49	1,91	2,09
C ₆	2,83	2,79	2,50	2,54	2,36	2,50	2,51
C ₇	2,54	2,51	2,43	2,43	2,39	2,40	2,40
C ₈	1,65	1,66	1,65	1,65	1,66	1,64	1,65
C ₉	1,05	1,09	1,09	1,11	1,12	1,12	1,13
C ₁₀	0,78	0,82	0,83	0,85	0,88	0,88	0,88
C ₁₁	0,66	0,70	0,72	0,73	0,78	0,77	0,77
C ₁₂	0,47	0,55	0,64	0,66	0,69	0,63	0,70
C ₁₃	0,34	0,43	0,48	0,45	0,52	0,54	0,57
C ₁₄	0,32	0,40	0,43	0,40	0,48	0,50	0,50
C ₁₅	0,28	0,29	0,37	0,39	0,41	0,39	0,36
C ₁₆	0,25	0,29	0,35	0,34	0,39	0,40	0,36
benzene	1,75	1,76	1,77	1,87	1,77	1,78	1,71
toluene	8,47	8,44	8,77	8,96	8,90	8,62	8,36

Table 3.Relative component composition of objects No. 1–7

Relationships between components	Relative component composition						
	1	2	3	4	5	6	7
	April	May	June	August	September	October	November
C ₃ / C ₄ (n-alkanes)	0,26	0,21	0,53	0,14	0,04	0,12	0,32
C ₄ / C ₅	0,64	0,59	0,07	0,50	0,29	0,48	0,69
C ₅ / C ₆	0,86	0,85	0,71	0,76	0,63	0,76	0,83
C ₆ / C ₇	1,11	1,11	1,03	1,05	0,99	1,04	1,05
C ₇ / C ₈	1,54	1,51	1,47	1,47	1,44	1,46	1,45
C ₈ / C ₉	1,57	1,52	1,51	1,49	1,48	1,46	1,46
C ₉ / C ₁₀	1,35	1,33	1,31	1,31	1,27	1,27	1,28
C ₁₀ / C ₁₁	1,18	1,17	1,15	1,16	1,13	1,14	1,14
C ₁₁ / C ₁₂	1,40	1,27	1,13	1,11	1,13	1,22	1,10
C ₁₂ / C ₁₃	1,38	1,28	1,33	1,47	1,33	1,17	1,23
C ₁₃ / C ₁₄	1,06	1,08	1,12	1,13	1,08	1,08	1,14
C ₁₄ / C ₁₅	1,14	1,38	1,16	1,03	1,17	1,28	1,39
C ₁₅ / C ₁₆	1,12	1,00	1,06	1,15	1,05	0,98	1,00
benzene/ toluene	0,21	0,21	0,20	0,21	0,20	0,21	0,20

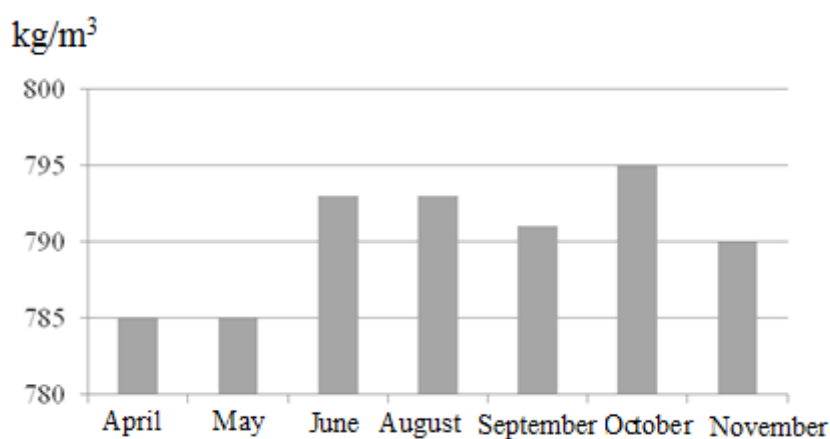


Figure 1.Distribution of density in accordance with sampling date

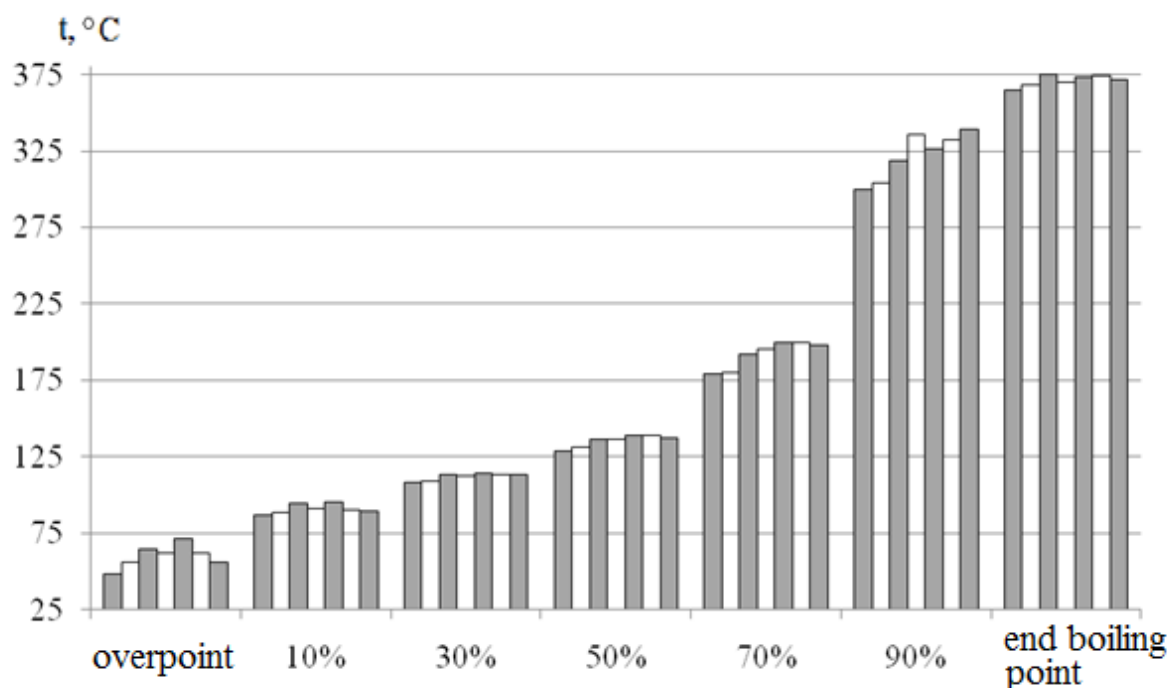


Figure 2. Distribution of fraction composition in according with sampling date

From the tables 1-3 is clear that changes of component composition of samples taken from the same oilfield and the same well at different times are similar with each other. The largest distinctions are noted low-boiled (gaseous) hydrocarbons. The great changes of composition of high-boiling hydrocarbons are not occurring. Samples No.3 and No.5 contain minimal amount of propane and n-butane and vary insignificantly from other samples by values of density and fractional composition.

From the carried out researches we can make a conclusion that different samples have common character of their component composition. Thus identification of gas condensates samples that differ from each other by time of sampling in cases of its stealing is possible and rational and can be done on the levels of genetic and group identity.

Changes in component composition usually occur because of evaporation in open package or under increased temperature and are presented in detail in the literature⁵. But examples of changes of component composition of oil products, especially for such wide fractional composition, aren't given there. The example of influence of nonhermetic packed sample of gas condensate was examined by us.

There are characteristics of 3 samples of *GCons* sampled from 3 reservoirs in private house shown in tables 4-6. Preliminary pre-trial investigation has shown that these gas

⁵See: Криминалистическое исследование нефтепродуктов и горюче-смазочных материалов: метод. пособие для экспертов, следователей и судей / [И. А. Золотаревская, Е. В. Шевырева, М. Л. Карабач и др.].— М. : ВНИИСЭ, 1987. — Вып. 1, 2.— 197 с.

condensates were sampled from the one source (one volume). The samples were given in 3 bottles. Two of them were packed hermetic and marked as objects No.2, 3. One bottle (object No.1) was closed non-hermetically (the cover was not turned off completely). It had sufficient influence on the results and final conclusions.

It was found that the component composition of object No.1 was redistributed in hydrocarbons (in relative composition) because of losses of light compounds that resulted in growth of high-boiled components (Figure 3).

Table 4. Physical-chemical properties of samples

Object No	Parameter						
	Density(20 °C), t/m ³	Fractional composition					
		Over point, °C	Fractional temperature, °C				distillation volume in 300 °C, %
			10 %	30 %	50 %	70 %	
1	0,752	38	77	119	159	233	84
2	0,754	42	79	120	161	230	84
3	0,754	40	79	121	158	233	84

It is noticed from the tables that physical-chemical parameters and relative component composition don't change, but component composition of obj. No. 1 (% of peak square) differ from samples No. 2, 3. The composition of light components (from C₄ to C₈) in this sample are smaller than for objects No. 2, 3, but the composition of more heavy components (C₁₁–C₁₆) is a bit more. Changes of relative component composition wasn't noticed because of using data of n-alkanes being close in boiling temperatures.

Table 5. Component composition of samples

Object	Component content, % square area												
	C ₄	C ₅	C ₆	C ₇	C ₈	C ₉	C ₁₀	C ₁₁	C ₁₂	C ₁₃	C ₁₄	C ₁₅	C ₁₆
1	2,59	3,71	3,62	3,41	2,77	2,41	2,13	2,01	1,90	1,77	1,49	1,24	0,92
2	3,47	4,37	4,14	3,90	3,02	2,49	2,11	1,88	1,66	1,56	1,31	1,08	0,86
3	3,46	4,34	4,43	4,09	3,05	2,38	2,03	1,73	1,57	1,51	1,28	1,10	0,77

Table 6. Relative component composition of objects

Object	Relative component composition										
	C ₅ /C ₆	C ₆ /C ₇	C ₇ /C ₈	C ₈ /C ₉	C ₉ /C ₁₀	C ₁₀ /C ₁₁	C ₁₁ /C ₁₂	C ₁₂ /C ₁₃	C ₁₃ /C ₁₄	C ₁₄ /C ₁₅	C ₁₅ /C ₁₆

1	1,02	1,06	1,23	1,15	1,13	1,06	1,06	1,07	1,19	1,20	1,35
2	1,00	1,06	1,29	1,21	1,18	1,12	1,13	1,07	1,19	1,21	1,25
3	0,98	1,08	1,34	1,28	1,17	1,17	1,10	1,04	1,18	1,16	1,43

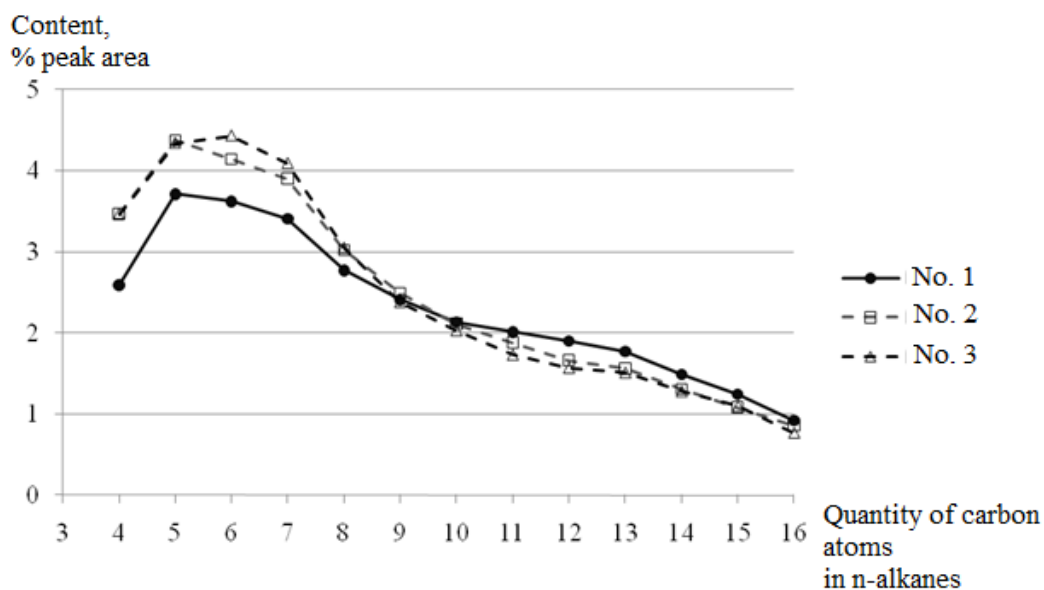


Figure 3. Change on component composition of sample No. 1 versus objects No. 2, 3

It is possible to give conclusion about the same group identity by hydrogen component composition for the samples No. 2, 3 using obtained results. Object No. 1 matches with objects No. 2, 3 only on the level of generic identity and doesn't have common group identity with them.

Conclusions. Comparative studies of *GCon* from different sources, including illegal penetration in gas condensate pipelines, is possible and reasonable on the both common generic and group identity levels. In order to obtain adequate results the objects of gas condensate should be hermetically packed, sampled during short period of time and, if possible, to present an average sample.