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Worker's Paradise: A History of Labor in the Oil Town of the Netherlands-Indie, 1890-1939

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Abstract

This article offers a preliminary survey on the working conditions of laborers in the petroleum industry in late-colonial Netherlands East Indies (1890-1939). Through an examination of the material conditions of work in the oil cities of Pangkalan Brandan, Balikpapan, and Palembang, this article argues that working conditions were substantially influenced by the idiosyncratic characteristics of the petroleum industry, consequently arguing against the current established literature on labor history in Indonesia. By emphasizing on these industrial characteristics and paying attention to its fluctuations, this article offers a more nuanced perspective on the issue of colonial labor regimes.

Keywords: labor history, petroleum industry, Netherlands Indies

“If an employer is as the trunk to a tree, then his employees are that tree’s branches—
and what is a tree without its branches?”¹

Sir Henri W.A. Deterding,
Chairman, Royal Dutch Shell Group, 1900-1936

Introduction

In the 1927 edition of their annual reports (*verslagen*), the Netherlands East Indies Labor Office (*Kantoor van Arbeid*) stated the following on the labor conditions in the South Sumatran trading city of Palembang: “[The fact that] petroleum companies can always have enough free workers available, must be attributed to the better conditions (higher wages, more amusements, better housing with electric lighting, well-equipped company stores with fair and controlled rates, etc.), which are not offered by plantation companies that come into production much later.”² Current labor historiography on the Netherlands East Indies (NEI) often points out that working in petroleum companies, such as the Royal Dutch Shell subsidiary *Bataafsche Petroleum Maatschappij* (BPM), was considered a well-paying job in an industry that provided favorable working conditions and excellent facilities for their employees, especially in comparison to other sectors such as rubber plantations and coal mining (Houben, 1995: 103). This fact did not, however, prevent outbreaks of worker unrest, such as the series of coolie attacks against their European supervisors in Lahat, Palembang, in 1929 (“Weer Aan Koelie Aanslag. [Another Coolie Attack],” *De Sumatra Post*, August 3, 1929) or Plaju, Palembang, in 1938 (“Koelie-Aanval Te Pladjoe [Coolie Attack at Pladjoe],” *Bataviaasch Nieuwsblad*, April 9, 1938). Oil companies periodically observed work strikes, protests, or even violence in their concessions or complexes. Consequently, it is arguable that the working conditions in the petroleum industry were not as idyllic as the established historiography has indicated.

Why did the working conditions differ between industrial cities? This paper examines colonial labor relations through an analysis of working conditions encountered by the workers in the oil towns of the late colonial Indies, such as in Pangkalan Brandan, Palembang, and Balikpapan. While it is possible that other aspects also influenced this development, I argue that the different and fluctuating working conditions evident in the petroleum sector primarily resulted from the idiosyncratic character of the industry, resulting in working conditions that

¹ Sir Henri Deterding and Stanley Naylor, *An International Oilman* (New York, N.Y.: Harper and Brothers, 1934), 15.

² “Dat de Petroleum-concessies steeds over voldoende vrije werklieden kunnen beschikken, moet worden toegeschreven aan de betere condities (hoogere loonen, meer amusemenen, betere huisvesting met electrische verlichting, ruim voorziene ondernemingstoko’s met billijke gecontroleerde tarieven enz.) welke er kunnen worden en ook worden aangeboden dan op de cultuurondernemingen, welke eerst veel later in productie komen en daarom niet zulke bijzonder gunstige condities kunnen aanbieden. .Kantoor van Arbeid, *Verslag van de Arbeidsinspectie Voor de Buitengewesten (1927)* [Reports of the Labor Inspectorate in the Outer Regions 1927] (Weltevreden: Landsdrukkerij, 1927), 83.

differed from those of other industries. To a certain extent, labor regimes in the plantations and the coal mines seem to rely on sheer coercion as the tool of governance, while in the oil fields and towns, incentives and welfare policies were used to manage the workers.

It should be noted here that the different nature of labor conditions in these oil cities should not be understood as claiming that the petroleum laborers were free from grievances or they were excluded from the general trend of labor repression in the NEI colonial regime. Just like its counterparts in other sections of the colonial society, oil workers in Pangkalan Brandan, Balikpapan, and Palembang experienced racial discrimination and colonial repression. It has been argued that it was exactly racial segregation and colonial repression that contributed to the failure of unions and labor movements in Java during the late 1920s.³ This fact, however, does not explain why petroleum laborers in late-colonial NEI failed to unionize before 1937, and why mass strikes were less common in Pangkalan Brandan, Balikpapan, and Palembang compared to Java.⁴

Discussions of labor in the Indies petroleum industry have been relatively scant. Company histories, for instance, leave limited room for the discussion of labor and tend to focus on great man decision making (Gerretson, 1953; Jonker, 2007: 6-7). Accounts of rank-and-file workers are virtually absent from these company histories, except for some narratives with a celebratory note. Economic historians, such as J. Thomas Lindblad,⁵ Jeroen Touwen, and Alex

³ John Ingleson argues that, during the late 1920s, the Dutch colonial regime implemented repressive policies against political parties and labor unions through colonial legal mechanisms, thus resulting in the inability of the urban intelligentsia in fostering linkages with their rural counterparts, which in turn rendering unions and their corresponding strikes dysfunctional. Ingleson, however, focused his examination on Java, where the population and colonial state power was much more intensified compared with the Outer Islands. See John Ingleson, *In Search of Justice: Workers and Unions in Colonial Java, 1908-1926*, Southeast Asia Publications Series 12 (Oxford u.a: Oxford Univ. Pr, 1986), 325.

⁴ Bambang Sulistyono notes that, in the case of the BPM in Balikpapan, a labor union only emerged in 1937 under the name of *Serikat Sekerja Perserikatan Kita*. There was, however, an association for European employees, the *Vereeniging van Geemployeerden bij de Petroleum Industrie in Nederlandsch-Indie* [Employees Union of the Petroleum Industry in the Netherlands Indies]. Peter Boomgaard noted the undisturbed “law and order” during the 1930s Depression, in which “labour unrest remained at very low levels.” Boomgaard argues that this was not only due to colonial state repression, but also caused by the fact that “the Javanese economy did better than many contemporary observers had deemed possible.” In his latest book, Ingleson also explicates how it was easy for labor union propagandists to “become frustrated and cynical” when trying to recruit oil workers, as was the case in a meeting in the BPM facility at Cepu in 1931, where BPM workers chose not to attend a well-publicized union meeting. Bambang Sulistyono, “Menuju Nasionalisasi Pertambangan Minyak Di Balikpapan (1930-1965) [Towards the Nationalization of the Oilfields in Balikpapan 1930-1965],” in *Dekolonisasi Buruh Kota Dan Pembentukan Bangsa*, ed. Erwiza Erman and Ratna Saptari, Edisi pertama (Jakarta: Yayasan Pustaka Obor Indonesia, 2013), 149; Peter Boomgaard, “Labour in Java in the 1930s,” *IISG International Research Programme Changing Labour Relations in Asia*, CLARA Working Papers, 7 (1999): 8; John Ingleson, *Workers, Unions and Politics: Indonesia in the 1920s and 1930s*, Brill’s Southeast Asian Library (Leiden: Brill, 2014), 175.

⁵ Lindblad highlights the importance of petroleum (together with rubber and copra) as an export commodity in late colonial Indies, pointing out that petroleum extraction signaled the progress of export production in the Outer Islands. Further, Lindblad also claims that the Indies petroleum industry “emerged around 1900 and expanded fast through the Depression of the 1930s [partly due to] its remarkable capacity to adjust to external price signals, thus sustaining growth to the sector, although its capacity to generate growth outside the oil sector was severely limited,” due to the industry’s export-oriented character. J. Thomas Lindblad, “The Outer Islands in the 19th Century: Contest for the Periphery,” in *The Emergence of a National Economy: An Economic History of Indonesia, 1800-2000*, ed. H. W. Dick et al. (St Leonards, NSW: Asian Studies Association of Australia in association with KITLV, Leiden, 2002), 104–5; J. Thomas Lindblad, “The Petroleum Industry in Indonesia Before the Second World War,” *Bulletin of Indonesian Economic Studies* Volume 25, no. No. 2 (August 1989): 73–74.

Hunter⁶ tend to focus on the structural importance of the petroleum sector for the economy while ignoring the question of labor. Meanwhile, anti-colonial labor historians such as Ann Laura Stoler and Jan Breman claim that labor relations in the Indies was a system filled with coercion, violence, physical abuse, and the lack of freedom for the disenfranchised workers.⁷ Stoler and Breman's position has been criticized for their excessive focus on workplace violence and the perpetual and absolute suffering of workers (Smith, 1991: 219-20; Liddle, 1986: 121-124). Other labor historians focusing on institutional factors, such as H.J. Langeveld and A. Kamphues, argue that working conditions improved gradually with time, as a result of policy and economic changes.⁸ On a similar note, Vincent Houben argues that the emergence of colonial state institutions such as the *Arbeidinspectie* (Labor Inspectorate) “contributed to ameliorate some of the harsh labor conditions.” (Houben, 1999: 23). These accounts, however, tend to aggregate the various labor conditions in the many industries of the Indies by viewing them as an undifferentiated mass across a variety of industries. Furthermore, accounts of the history of labor in Indonesia tend to focus on agricultural and plantation labor, while giving only a limited amount of space, if any, to industrial laborers such as petroleum workers, particularly in the oil towns.

In this paper, I use Dutch-language primary sources, such as the Yearbook of the Mining Service in the NEI (*Jaarboek van het Mijnwezen in Nederlandsch Oost-Indië*) and the Reports of the Labor Inspectorate Service in the NEI (*Verslag van den Dienst der Arbeidsinspectie in Nederlandsch-Indië*). These two sources are particularly useful for illustrating the overall labor conditions in the Indies, particularly in terms of its material and non-material conditions. I also examine contemporaneous newspapers, such as the *Bataviaasch Nieuwsblad*, and *De Indische Courant*, among others.

This paper will contribute to the labor history literature on the Indies by looking into a single economic sector, namely the petroleum sector, that is substantially important for explaining domestic development and the international integration of the economy during the late colonial years (1890-1939). I examine the possibilities of analyzing the working conditions—

⁶ Alex Hunter, “THE INDONESIAN OIL INDUSTRY*,” *Australian Economic Papers* 5, no. 1 (1966): 59–106; Jeroen Touwen, *Extremes in the Archipelago: Trade and Economic Development in the Outer Islands of Indonesia, 1900-1942*, *Verhandelingen van Het Koninklijk Instituut voor Taal-, Land- En Volkenkunde* 190 (Leiden: KITLV Press, 2001), 150.

⁷ Stoler and Breman make overarching claims on labor in the Netherlands Indies, such as that “coercion, in its direct and subtler forms, [was] an integral part of colonial capitalism even in its late expansion.” Breman goes further by saying that in the Outer Islands, “[worker] subjugation acquired the character of a modern form of slavery,” Ann Laura Stoler, *Capitalism and Confrontation in Sumatra's Plantation Belt, 1870-1979*, 2nd ed., with a new preface (Ann Arbor: University of Michigan Press, 1995), 45; Jan Breman, *Taming the Coolie Beast*, Second Edition (Oxford: Oxford University Press, 1990), xv–xvi.

⁸ Primarily, Langeveld and Kamphues focus on state interventions—such as the gradual abolition of the infamous *Poenale Sanctie* [Penal Sanction] clause in the Indies labor law. A. Kamphues, “Na Rhemrev. Arbeidsomstandigheden Op de Westerse Ondernemingen in de Buitengewesten van Nederlands-Indië, 1904-1938 [After Rhemrev. Working Conditions in Western Enterprises in the Outer Islands of the Netherlands Indies, 1904-1938],” in *Economisch-En-Sociaal-Historisch Jaarboek*, ed. Nederlandsch Economisch-Historisch Archief, vol. 51, *Economisch-En-Sociaal-Historisch Jaarboek* (Amsterdam: NEHA, 1988); H.J. Langeveld, “Arbeidstoestanden Op de Ondernemingen Ter Oostkust van Sumatra Tussen 1920 En 1940 in Het Licht van Het Verdwijnen van de Poenale Sanctie Op de Arbeidscontracten [Labor Conditions on the Companies on the East Coast of Sumatra between 1920 and 1940 in the Light of the Repeal of the Penal Sanction in the Work Contracts],” in *Economisch-En-Sociaal-Historisch Jaarboek*, ed. Nederlandsch Economisch-Historisch Archief, vol. 41, *Economisch-En-Sociaal-Historisch Jaarboek* (Amsterdam: NEHA, 1978).

by looking into the material conditions of labor—and the impact of a nascent capital-intensive mining industry in a colonial socio-political environment in the tropics.

Measuring Working Conditions

Being an oilman, engineer, mechanic, or a coolie for a petroleum company was—and still is—a highly demanding career, especially if one is working on one of the tropical islands in the Indies. The workload itself is challenging: wielding surveying instruments, mapping uncharted areas, operating heavy-duty drilling rigs, supervising drill sites, and managing supply chains for oil operations. Meanwhile, the environment also posed tremendous challenges, with natural dangers (such as attacks by wild animals) and human-made ones (such as tribal attacks) constantly threatening European, Chinese, and Indonesian workers alike. Perhaps these conditions are why “work in the oil industry was, then as perhaps even now, considered ‘men’s work.’” (Lindbald, 1999: 85).

Most of the previous accounts of labor history in Indonesia include petroleum workers as part of a larger mass of mining labor, equating them with the workers that were toiling away in the rubber plantations of Deli, tin mines of Bangka, and coal mines of Ombilin.⁹ Discussions of the history of labor in the Indies are dominated by agricultural and plantation labor, while ignoring other sectors. Works on the history of industrial labor, for instance, have been relatively scant.¹⁰ Furthermore, general discussions on mining labor seem to ignore the variegated trends in working conditions that were clearly evident across the mining sector. Consequently, this perspective tends to aggregate the petroleum workers with those working in underground mine shafts and oppressive labor regimes in the coal and tin mines.

While the oil industry grew into an important sector of the economy of the late colonial Indies, the sector was concentrated in certain oil-producing areas of the archipelago such as East Sumatra, South Sumatra, and South and East Borneo. The areas examined in this paper are the oil town of Pangkalan Brandan near Medan in East Sumatra and its corresponding production fields, the refinery towns of Plaju and Sungai Gerong in South Sumatra,¹¹ and the oil city of Balikpapan and its producing fields in South and East Borneo.

⁹ For instance, look at the general accounts of coolie labor in V. J. H. Houben and J. Thomas Lindblad, eds., *Coolie Labour in Colonial Indonesia: A Study of Labour Relations in the Outer Islands, c. 1900-1940* (Wiesbaden: Harrassowitz, 1999).

¹⁰ Some notable exceptions are the works by Mary F. Somers Heidhues on the tin mining in Bangka and G. Roger Knight on the sugar industry in Java. Look at G. R. Knight, *Commodities and Colonialism: The Story of Big Sugar in Indonesia, 1880-1942*, *Verhandelingen van Het Koninklijk Instituut Voor Taal-, Land- En Volkenkunde*, volume 286 (Leiden, The Netherlands; Boston, Massachusetts: Brill, 2013); G. R. Knight, *Sugar, Steam and Steel: The Industrial Project in Colonial Java, 1830-1885* (Adelaide, South Australia: University of Adelaide Press, 2014); Mary Somers Heidhues, *Bangka Tin and Mentok Pepper: Chinese Settlement on an Indonesian Island* (Singapore: Institute of Southeast Asian Studies, 1992).

¹¹ Both Plaju and Sungai Gerong are now part of the city of Palembang in South Sumatra Province.



Figure 1. Map of Indonesia, circa 2002. Published by the Central Intelligence Agency. Medan, Palembang and Balikpapan is underlined on the map. Pangkalan Brandan, which is not displayed, is located near Medan (underlined). Source: Perry-Castañeda Library Map Collection, University of Texas at Austin.

In contrary to the prior arguments positing oil industry as an “enclave economy,” this paper argues that the petroleum industry became an essential and integrated part of the regional economies (Lindblad: 71-74). For instance, in 1919 there were an estimated 23,000 laborers working both directly and indirectly for the oil industry in Palembang (South Sumatra) and 17,700 workers in Balikpapan (East Borneo).¹² Further, in 1921, at least 12,000 workers were living in the BPM oil outpost of Tarakan in East Borneo, marking a significant concentration of people on a formerly uninhabited island (Touwen: 147-148). In 1929, the population of Pangkalan Brandan (East Sumatra) increased to 8,550 workers (including Europeans), while more than 1,500 local workers were employed in the Langkat concessions of East Sumatra (Lindblad: 58). In 1930, of 39,092 people living in Balikpapan, at least 3,000 were directly employed by BPM, and the city “depended on oil-created jobs” (Magenda, 2010: 47).

While the number of workers employed by the Indies petroleum industry has always been substantial, this number was, for the most part, shadowed by that of laborers in rubber and ore mining, as shown in Chart I. Furthermore, Chart I also shows that the number of workers in the petroleum industry was relatively stable compared to that in ore and coal mining, particularly in times of economic crisis and malaise, such as in the Depression years of the 1930s, although fluctuation was evident.

¹² The city of Balikpapan itself was built around the housing, markets, refineries, petroleum tanks, and ocean-going ports of BPM, surrounded by “an uninhabited hinterland and [a] vast jungle that [that] closes in the company of all sides.” M.D Horst, *Beri-Beri En Hare Bestrijding Op de Ondernemingen Der Bataafsche Petroleum Maatschappij in Nederlandsch Indië Benevens Eenige Beschouwingen over Binnenlandsche Kolonisatie [The Fight against Beri-Beri in the Companies of the Bataafsche Petroleum Maatschappij in Netherlands Indies and Some Reflections on Internal Colonization]* (Leiden: Leidsche Vereeniging ter bevordering van de Studie der Tropische Geneeskunde, 1919), 12.

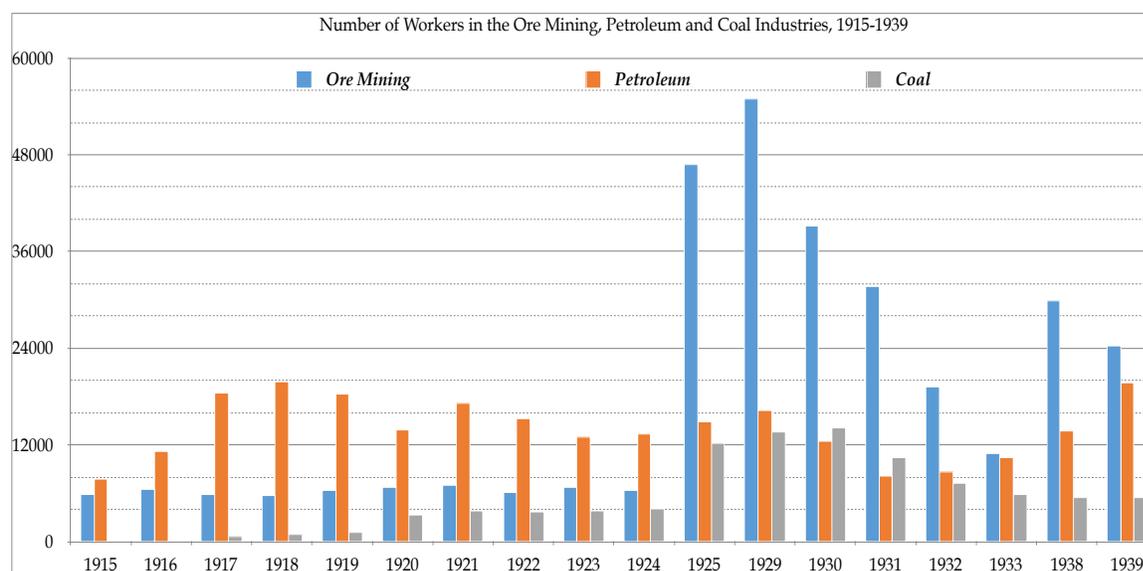


Chart 1. Workers in Ore Mining, Petroleum, and Coal Industries, 1915-1939.¹³ Source: *Jaarboek van het Mijnwezen, 1915-1939*.

The most prominent factor that has shaped working conditions in the oil cities is the unique characteristics of the petroleum industry. The first character of the petroleum industry is its capital-intensive nature, which has shaped the nature of its labor force. Because the character of the oil companies necessitates the recruitment of semi-skilled or skilled workers, petroleum firms tend not to recruit Javanese workers through industry associations and syndicates.¹⁴ As early as 1910, BPM recruited its own workers and selected them in-house, far earlier than other companies, due to the urgent need for skilled workers (Houben: 39-40). During the 1920s, most of the coolies working in BPM had the status of free workers (*vrije arbeiders*).¹⁵ Consequently, most of the workers in the oil industry were paid more than their unskilled counterparts in the rubber and tin enterprises.

Second, and partly due to its capital-intensive nature, the petroleum industry was often identified with huge initial costs that often outweighed operational costs. Oil companies often relied on high initial costs—for the securing of concessions, financing of oil exploration expeditions, construction of producing (oilfields), transportation (pipelines and harbors), and

¹³ The figures from 1915-1924 do not include state-owned Ombilin coal mines or the Billiton tin mines (*Billiton Maatschappij*). From 1925 onwards, the figures include the Ombilin and Billiton mines, and the newly-acquired state tin mines in Bangka.

¹⁴ Some examples of these industrial associations and syndicates (*syndicaats*) are the East Sumatra Rubber Planters Association (*Algemeene Vereeniging Rubberplanters ter Oostkust van Sumatra, AVROS*) or the Southwest Sumatra Syndicate (*Zuid-West Sumatra Syndicaat*).

¹⁵ According to the Coolie Ordinance (*Koelie-Ordonnantie*) 1880, the *de facto* labor law in the Netherlands East Indies, workers were differentiated into “contract” or “free” coolies. The difference between the two is that the “contract” coolie was affected by the Penal Sanction (*poenale sanctie*) article, which considered it a criminal offence for the coolies not to comply with the obligation in their contracts. Often, the “free” workers also obtained better wages compared to the contract coolies. Yoko Hayashi, “Agencies and Clients: Labor Recruitment in Java, 1870s-1950s,” in *CLARA Working Paper* (Amsterdam: International Instituut voor Sociale Geschiedenis [International Institute for Social History], 2002), 17; Dienst der Arbeidsinspectie, *Verslag van Den Dienst Der Arbeidsinspectie in Nederlandsch-Indië over de Jaren 1921 En 1922*. [Reports of the Labor Inspectorate in the Netherlands Indies over the Year 1921 and 1922] (Weltevreden: G Kolff & Co, 1923), 50.

manufacturing (refining and packaging of finished products) facilities—which shaped the nature of the petroleum industry, particularly in terms of labor relations. The massive initial costs of establishing both an oilfield and a refinery eclipsed the overhead expenses for labor, while the automated production line of the refinery also added in low labor necessity, subsequently positing that changes in labor costs did not influence the petroleum industry as much as they did in other industries (Frankel, 1969: 17-29).

Third, the petroleum industry was one of the first industries that was vertically-integrated. In his study of the managerial revolution in American firms, business historian Alfred D. Chandler, Jr. points out that the petroleum industry is one of the sectors that first experienced vertical integration, which is in itself a phenomenon triggered by the rise of mass production (Chandler, 1977: 321-26). The basic principles of mass production were easily observed in the continuous-process technology adapted by oil refinery plants. According to Chandler, “...economies and lower unit costs resulted from an intensification of the speed of materials through an establishment [,] they came more from organization and technological innovations that increased the velocity of throughput than from adding more men and machines” (Chandler: 254-57) In fact, the diminishing importance of labor in a capital-intensive industry such as petroleum is evident in the number of employees working in the refinery compared to the total workers in the industry. For instance, in 1899, only 1.5 percent of the total workers in the American petroleum industry worked in a refinery (257). Similarly, the number of refinery workers in the Indies petroleum industry is relatively low compared to the total workers in the industry.

As we will see in this paper, the diminishing importance of labor in the petroleum industry does not mean that they were treated differently compared to the coal and rubber workers. It did, however, changed the nature of the industrial relations. On the one hand, the nature of crude oil and the capital and technologically intensive nature of the oil industry means that commodity flows were less vulnerable to labor disruptions such as strikes (Mitchell, 2013: 38-39). On the other hand, the industrial character also means that any supply interruptions or irregularity will be extremely expensive for the oil company, and thus it forced the companies to invest more in the welfare of its workers (Penrose, 1968: 47). It is possible that this idiosyncratic nature of the oil industry—combined with the relatively better working conditions offered—is the reason why most oil companies in the Indies did not have significant labor unions or movements and why the petroleum companies kept close attention to the well-being of their workers.¹⁶

In order to assess the working conditions in the petroleum industry, it will be fruitful to look into some of the established benchmarks of measuring worker conditions in the Indies. Houben argues for a model of measuring causal links between material conditions (wages, housing, medical facilities, death and disease) and non-material conditions (punishment, violence, desertion, and coolie complaints) while also considering the role of state intervention through the Mining Service (*Dienst van het Mijnwezen*) and the Labor Inspectorate (*Arbeidsinspectie*), spatial and temporal factors, and the nature of the enterprise (Houben: 113-115). The analysis in this paper will focus on these five variables and how it relates to the material conditions of the workers in the Indonesian oil cities, such as Pangkalan Brandan (East Sumatra), Plaju and Sungai Gerong (Palembang), and Balikpapan (East Borneo).

¹⁶ An exception would be the BPM factories in Cepu, Java, which boasted a labor union related to the Indonesian Communist Party in the 1920s. Look at Ingleson, *In Search of Justice*.

Material Conditions in the Oil Cities

The petroleum industry was far from a monolithic entity. Its factors of production were separated among the isolated oilfields deep in the jungles and swamps of Sumatra and Borneo; intermediate refineries and harbors located in oil enclaves such as Pangkalan Brandan; and the refinery complexes in major cities such as Balikpapan. Consequently, working experiences in the industry varied widely, particularly in terms of material conditions. More than often, conditions in the oil cities were better than in the oilfields in terms of working hours, wages, food, housing, health, safety, and recreational facilities.

Through an analysis of the material conditions of the petroleum laborers, it is clear that the character of the oil industry—divided between the upstream and downstream, capital-intensive, and so forth—substantially affected how the industry treated its workers. This fact is evident in the differing conditions of wages, housing, health, work safety, and recreation facilities in the oil cities compared to the oil fields.

1. Works and Working Hours

Working hours and workloads in the petroleum industry fluctuated through time and were substantially affected by the characteristics of the industry. During the early period (1890-1915), the average coolie departing to work in the plantations and mines in Sumatra or Borneo faced a long and arduous voyage.¹⁷ Upon arrival, oil workers conducted exploratory drillings (*proefboringen*). First, ground samples were to be obtained from an area by digging test pits (*proefkuils*) that were 1.5 to 10 meters wide and 8 meters deep (Witkamp, 1917: 17). During this process, most of the hard work was done by Chinese or Indonesian coolies under the supervision of European geologists (Hoeksma, 1913: 9). When an area was considered potentially lucrative, the company prepared the area through an overwhelmingly complicated process of establishing its operations.¹⁸

During this early period, workload in the downstream sector and the upstream sector did not differ that much, particularly in terms of complexity. For example, the establishment of the Royal Dutch oil town of Pangkalan Brandan in 1890 was an extremely complex endeavor, in which the site manager was tasked with a dazzling array of responsibilities characteristic of a massive developmental project:

¹⁷ According to one account, a coolie departing Java experienced: “A voyage lasting about a week, often followed by a journey up-river for several days, the newly recruited coolie bound for a rubber estate arrived in a forested, sparsely populated hilly area. [She]or he—most coolies were young men—found himself in the midst of virtually uninhabited swamps or dark jungle whenever an oil drilling site or a coal mine was his destination. Once on the enterprise he entered a world regulated by numerous obligations and restrictions set by the employer. Without the social framework of his place of origin he became one amongst hundreds, or even thousands. Trudi Nierop, “Lonely in an Alien World: Coolie Communities in Southeast Kalimantan in the Late Colonial Period,” in *Coolie Labour in Colonial Indonesia: A Study of Labour Relations in the Outer Islands, c. 1900-1940*, ed. V. J. H. Houben and J. Thomas Lindblad (Wiesbaden: Harrassowitz, 1999), 159–60.

¹⁸ According to Hoeksma, oil companies established their operations by: “Clearing and picking out a suitable site for settlement and the drill sites. Establishing transportation routes, including laying roads, bridges, and clearing the river from trunks and branches. Building temporary housing and an infirmary for the employees and coolies. Constructing drilling towers and shipping bases (*pangkalans*). Staging of materials for drilling and construction. Digging a ground reservoir (or later, steel tanks) for temporary storage of oil. Establishing pipelines for draining the oil from the rigs to the reservoir. Lastly, all of these facilities are to be connected by telephone to the area headquarters.” Hoeksma, 16.

“To clear a huge area of virgin jungle and erect the refinery, the brickworks, the sawmill, a water purification system, other workshops, stores, office, and residential accommodation, and then install the equipment; to build a quay strong enough to unload the expected heavy materials, such as railway locomotives; to lay ten kilometers of railway track on an embankment through the jungle to the drilling site, which included crossing a river with a bridge 44 meters long; to lay the pipeline to the refinery; to build the derricks and begin drilling; and to organize the whole administrative process needed to control progress against plans, and to keep track of cash, costs, materials, wages, [and] workers.” (Jonker, : 25)

As with most of the cases in other pioneering enterprises in the region, massive projects such as Pangkalan Brandan were often hampered by labor shortages (25). Working conditions in these new establishments were often harsh for the workers—ten hours of work per day for seven days a week without any holidays—and exacerbated the already bad working conditions in the oilfields (27). Political contentions also haunted these oil projects; in 1891, for example, “laborers began to desert the site in droves, demoralized and fearful of rumors about marauding Achinese [*sic*] warriors” (29).

An average working day for an oil worker was rigidly disciplined. In 1916, a coolie or worker in the BPM would wake up between 5 and 6 AM, bathe, and breakfast before going to work from 6 AM to 12 PM. At 12 PM, he would get a lunch break until 1.30 PM to cook and eat, and then work again until 5.30 PM when the working day ended (Nierop: 161-62). Workers usually worked six days a week, with Sundays off, in accordance with Indies labor law regulations, thus exemplifying the role of state intervention in shaping working conditions in the industry (Schiller, 1946: 6). This working arrangement was arguably better than that of the harsher working regimes evident in the in the Ombilin coal mines.¹⁹

In the petroleum industry, firm maturity influences how a company manages its workers. For instance, in a scene not too dissimilar from Royal Dutch’s Pangkalan Brandan during its pioneering times, bad working conditions were observed in the Standard Oil subsidiary *Nederlandsche Koloniale Petroleum Maatschappij* (NKPM) Kutai concessions during its early years. On September 27, 1916, the *Bataviaasch Nieuwsblad* reported that the NKPM coolies lacked proper housing and clean drinking water, while diseases such as malaria, dysentery, and skin diseases were the norm, resulting in a high fatality rate (“Koeliewee. [Coolie Woes],” *Bataviaasch Nieuwsblad*, September 27, 1916). During this formative period, life was hard, and workers’ morale was low. The Royal Dutch, and NKPM cases suggest that firm maturity substantially affected working conditions, particularly in the upstream sector (Nierop: 165).

In terms of work regimes, there was a semi-militarized work hierarchy operating in the companies. There were usually two European managers in charge of coordinating operations and responding to accidents. The field manager, aptly named by the coolies as the *Toewan Besar* (“Big Boss”), was tasked with overseeing the entire operation, and the other European—called the *Toewan Ketjil* (“Lower Boss”)—was responsible for coolie operations, warehouse administration, regulation of transports, guarding the field, coordinating medical responses,

¹⁹ It was noted that in the coal town of Ombilin, workers were assigned to one of three eight-hour work shifts that were randomly assigned each day: from 6 AM to 2 PM, 2 PM to 10 PM, or 10 PM to 6 AM, thus suggesting a higher level of stress. Erwiza Erman, “Miners, Managers, and the State: A Socio-Political History of the Ombilin Coal-Mines, West Sumatra, 1892-1996” (Universiteit van Amsterdam, 1999), 42.

dispensing food supplies, and maintaining discipline, thus serving the role as “quartermaster” for the whole operation.²⁰ This arrangement was quite similar to that of the coal mines in Ombilin, where the Indonesian coolies worked under the supervision of the European manager and junior manager (Erman: 42-43).

Oilfield operations consisted of an extended production line, even prior to the refining process. Most of the hard work was done by Javanese and Chinese coolies that were working as drill operators, field coolies, blacksmiths, carpenters, masons, distillers, and cooks. Europeans, who had always been a minor part of the workforce, served as the area chiefs (*terreinchefs*), area engineers (*terrainmachinisten*), and drilling masters (*boormeesters*).²¹ In one account, it was noted that the field manager (*De Administrateur*) and his administrative officials lived in the central establishment in Pangkalan Brandan together with coolies and workers that were posted to the refinery and factories. Meanwhile, European engineers and geologists lived in the oilfields together with rank-and-file coolies. These two areas were often quite distant from each other, thus underlining the different experiences faced by the workers in the oilfields and the refineries.²²

While the working conditions faced by the workers in the centers and the oilfields were different from each other, it is clear that all of these workers experienced a rigidly disciplined, semi-militarized, working environment.²³ Discipline was essential to keep up with the company’s expectations and maintaining the precision needed to operate the industrial machinery.

2. Wages

Workers in the petroleum industry were relatively well paid, although initially wage levels were low. Workers’ wages were separated into three overlapping categories, namely contract type, gender, and ethnic group.²⁴ All of these workers received an advance payment ranging from f.15 to f.30 per person, which they were supposed to repay as premiums deducted from their daily wages.²⁵ An example of wage arrangements in the BPM operations in South and East Borneo is listed in the Table I below. Just like in other Western enterprises in the Indies during the period, ethnic and gender differentiation over wage rates was common in the petroleum industry.

No	Type of Worker	Daily Wage	Paid Leave on Public Holidays	Number of Days Off per Year	Food Provisioning	Amount of Pay Withheld for Food	Food Costs

²⁰ Hoeksma, *Schetsen Uit De Olie*. [Sketches from The Oil], 19.

²¹ Hoeksma, *Schetsen Uit De Olie*. [Sketches from The Oil], 20.

²² For instance, the drilling towers of the Perlak concession in Aceh were connected to Pangkalan Brandan by a 150 KM pipeline. Horst, *Beri-Beri En Hare Bestrijding Op de Ondernemingen Der Bataafsche Petroleum Maatschappij in Nederlandsch Indië Benevens Eenige Beschouwingen over Binnenlandsche Kolonisatie* [The Fight against Beri-Beri in the Companies of the Bataafsche Petroleum Maatschappij in Netherlands Indies and Some Reflections on Internal Colonization], 7.

²³ Labor historian Alf Lüdtke claims that there are many similarities between the soldier at the front line and the laborer in the steel mill. Division of labor, comradeship, and precariousness, for instance, exist in both professions. See Alf Lüdtke, “Soldiering and Working: Almost the Same?,” in *Global Histories of Work*, ed. Andreas Eckert, Work in Global and Historical Perspective volume I (Berlin: De Gruyter Oldenbourg, 2015).

²⁴ Dienst der Arbeidsinspectie, *Verslag van Den Dienst Der Arbeidsinspectie in Nederlandsch-Indië over de Jaren 1917 En 1918* [Reports of the Labor Inspectorate in the Netherlands Indies over the Year 1917 and 1918] (Weltevreden: Boekhandel Visser & Co, 1919), 144.

²⁵ Kantoor van Arbeid, *Verslag van de Arbeidsinspectie Voor de Buitengewesten (1927)* [Reports of the Labor Inspectorate in the Outer Regions 1927], 60.

						Provisions	
1	Men	30 to 50 Cents	Without	30 and ½ Day	Full	15 Cents	33 Cents
2	Men	45 Cents	Without	58 and ½ Days	None	14 Cents	12 ½ Cents
3	Men	40 Cents	With	58 and ½ Days	None	14 Cents	12 ½ Cents
4	Women	32 Cents	Without	58 and ½ Days	None	14 Cents	12 ½ Cents
5	Women	30 Cents	With	58 and ½ Days	None	14 Cents	12 ½ Cents
6	Chinese	52 Cents	Without	58 and ½ Days	None	14 Cents	12 ½ Cents
7	Makassarese	80 Cents	Without	54 Days	None	14 Cents	12 ½ Cents

Table 1. Wages and Working Days of BPM Workers in Southeast Borneo (Balikpapan), 1918.
Source: *Verslag van den Dienst van Arbeidsinspectie, 1917-1918*

In 1910-1914, Indonesian workers working for BPM already received similar wages to those in other capital-intensive industries such as the *Deli Spoorwegmaatschappij* (Deli Railways). The Labor Inspectorate noted that male coolies received f.0.40 per day and female coolies received f.0.32 per day. Furthermore, wages also differed between the contract coolies and the free workers. Javanese men received f.0.45 to f.0.65, Javanese women received f.0.35 to f.0.45, and Chinese men received f.0.60 to f.0.75 daily in the BPM fields in East Sumatra.²⁶ In comparison, the coal miners at Ombilin received only f.0.30-f.0.40 in 1910.²⁷ Thus, during the first half of the 1910s, the wage regime in oil companies was already comparatively better than in their counterparts in the coal industry.

In 1919, BPM increased the working wages for those posted to their facilities across the *Residentie* of Palembang by f.0.20 per day as a response to an increasing rate of desertion and worker migration.²⁸ During the 1920s, the average minimum wage for the oil workers in Palembang was at least f.0.55-f.0.90 per day, which was far above than their counterparts in the rubber industry (f.0.37-0.42 cents), tin (f.0.24-0.51), and coal (f.0.44-0.55 cents).²⁹ In 1922, BPM paid at least f.0.85 cents for an unskilled Indonesian and a maximum of f.6 per day for a highly-skilled Indonesian worker in Palembang, in contrast with their counterparts in the plantation industry who were paid only f.0.50 to f.0.75 at most.³⁰

²⁶ Dienst der Arbeidsinspectie en Koeliewerving, *Verslag van Den Dienst Der Arbeidsinspectie En Koeliewerving in Nederlandsch-Indië* [Reports of the Labor Inspectorate in the Netherlands Indies] (Weltevreden: Filiaal Albrecht & Co, 1914), 44.

²⁷ Erman, "Miners, Managers, and the State: A Socio-Political History of the Ombilin Coal-Mines, West Sumatra, 1892-1996," 46.

²⁸ Dienst der Arbeidsinspectie, *Verslag van Den Dienst Der Arbeidsinspectie in Nederlandsch-Indië over Het Jaar 1919* [Reports of the Labor Inspectorate in the Netherlands Indies over the Year 1919] (Weltevreden: Boekhandel Visser & Co, 1920), 63-65.

²⁹ Ellen Leenarts, "Coolie Wages in Western Enterprises in the Outer Islands, 1919-1938," in *Coolie Labour in Colonial Indonesia: A Study of Labour Relations in the Outer Islands, c. 1900-1940*, ed. V. J. H. Houben and J. Thomas Lindblad (Wiesbaden: Harrassowitz, 1999), 146; Heidhues, *Bangka Tin and Mentok Pepper: Chinese Settlement on an Indonesian Island*, 114.

³⁰ Dienst der Arbeidsinspectie, *Verslag van Den Dienst Der Arbeidsinspectie in Nederlandsch-Indië over de Jaren 1921 En 1922*. [Reports of the Labor Inspectorate in the Netherlands Indies over the Year 1921 and 1922], 51.

The oil companies also implemented performance-based wage incentives. In 1915, BPM implemented a bonus system for petroleum workers, in which workers were to be allowed certain bonuses for so-called “responsible work,” working overtime, and a long service period.³¹ These policies show that the oil companies used incentives rather than coercion to improve the performance of their workers.

The idiosyncratic wage regime in the petroleum industry was characterized by an emphasis on incentive-based performance standardization; higher basic wages based on ethnicity, gender, and skill; and a standard provision of worker welfare. For instance, workers assigned to factory work—such as operating machines in the refinery—often obtained special bonuses or were considered “skilled workers,” and thus were paid more than the oilfield workers (Leenarts: 134).

Unlike the Indonesians, European workers also enjoyed extra facilities—such as better housing and access to company-owned cars (Sulistyo: 147). While the European administrators and engineers were paid the most, semi-skilled *Indische* (mixed-blood) and Indonesian men posted to the downstream sector—those working in the refineries as stillers, for instance—obtained better wages than the average, coolie workers in the oilfield (Jonker: 102). The enactment of these performance-based bonus systems and skill classifications in BPM highlights the fact that the nature of the industry affected how a company managed its workers. On the plantations and in the coal mines, coercion was the primary tool for labor governance, while in the petroleum fields and refineries, incentive and welfare were used to manage the workers.

a. Food

Food supplies were an important part of the life of the workers. Under the requirements of the mining and labor laws, companies were required to ensure the provision of adequate food supplies for their laborers. In fact, the question of workers’ food supplies is one of the most prominent issues noted by the labor inspectors in their visits. Oil companies such as BPM took the problem of food supply seriously, which was reflected in the high quality of food provided to their workers.

While during the early periods (1890-1915) of the industry, food supplies were arranged by the field manager in an *ad hoc* manner which often resulted in shortages and confusion, food was supplied as a part of workers’ wages (Gerretson: 130-31). In 1916, BPM experimented in replacing this mechanism with a system of shopping money (*wang-blandja*), in which the company handed out weekly advances for the workers’ food expenses. The experiment failed because most of the workers thought that the advance was insufficient for eating in the local food shops (*warungs*) (Nierop: 161-162).

Subsequently, during the late 1910s, BPM resorted to supplying a subsidized supply of fresh and packaged foodstuffs. A worker in the Borneo fields received 36 *kati* of rice, 6 *kati* of salted fish, 30 salted eggs, 1 *kati* of salt, and 1 liter of coconut oil every month at a subsidized price of f.2.70. Another option for the laborer was to receive a prepared food ration which cost 14 cents per day.³² In some instances, such as in Balikpapan, laborers were also supplied with a

³¹ Dienst der Arbeidsinspectie, *Verslag van Den Dienst Der Arbeidsinspectie in Nederlandsch-Indië over Het Jaar 1920* [Reports of the Labor Inspectorate in the Netherlands Indies over the Year 1920] (Weltevreden: G Kolff & Co, 1921), 61.

³² 1 *kati* or *catty* is equal to 0,6 kilograms. Dienst der Arbeidsinspectie, *Verslag van Den Dienst Der Arbeidsinspectie in Nederlandsch-Indië over Het Jaar 1919* [Reports of the Labor Inspectorate in the Netherlands Indies over the Year 1919], 44.

limited amount of European-style foodstuffs such as canned milk, butter, and cheese, highlighting the company's attention towards food supplies (Sulistyo: 147).

It is clear that the quality of food was better in the oil companies compared to the other enterprises, such as the coal mines at Ombilin in 1900-1912. While coal workers also received rations of rice, vegetables, eggs, and salted fish, food distribution in Ombilin was handled by a supplier contracted by the company, resulting in a poor quality of foodstuffs. Furthermore, in 1912-1918, workers in Ombilin often complained of the diminishing portions of rice, lack of variation, and unequal distribution of the foodstuffs due to corruption (Erman: 53-54).

b. Housing

Most of the time, petroleum operations were conducted in isolated locations, such as in the jungles of Sumatra or the swamps of Borneo. This required the companies not only to recruit laborers from Java or elsewhere, but also to provide housing facilities. Housing facilities for the oil industry developed from temporary, makeshift facilities to developed, well-established settlements (*kampongs*), widely considered exemplary by the labor inspectors and observers.

In 1913, oil companies such as the BPM initiated efforts to establish planned housing compounds for the working community. In Pangkalan Brandan, BPM implemented a so-called "colonization trial plan" (*Kolonisatieproeven*) in its working concessions and industrial areas, perhaps the first of its type in the colony.³³ According to this plan, the company built a housing complex for European, Asian, and Indonesian workers. For Indonesian workers, particularly the Javanese coolies, the oil company tried to construct a Javanese Village (*Javanen-Kampung*) to accommodate their imported workers and to "preserve the best [morale] of the Javanese labor."³⁴ Through the *kampung* scheme, the BPM provided workers with housing facilities that were considered proper (*behoorlijk*) according to the Labor Inspectors in 1922.³⁵

Native housing improvement (*Kampongverbetering*) projects such as the BPM *Kampung* scheme were not explicitly required by the state through the Labor and Mining Laws. In fact, the BPM scheme predated the Indies government's first constitutional edict enabling the

³³ Interestingly, the BPM housing initiative materialized in the same year as the 1913 International Housing Congress that took place in the Netherlands, in which Dutch engineer H.F. Tillema argued for "a necessity of *kampongverbetering*, an improvement of native quarters." The first Housing Congress in the Indies, conducted in Semarang under the initiative of Dutch town planner Thomas Karsten, did not materialize until April 1922. Rudolf Mrázek, *Engineers of Happy Land: Technology and Nationalism in a Colony*, Princeton Studies in Culture/Power/History (Princeton, N.J.: Princeton University Press, 2002), 59; H. W. Dick, *Surabaya, City of Work: A Socioeconomic History, 1900-2000*, Research in International Studies, no. 106 (Athens: Ohio University Center for International Studies/Ohio University Press, 2002), 198.

³⁴ The *Kampung* consisted of "90 houses that were surrounded by gardens for planting crops that were constructed in a 'village-like' pattern," complete with roads, fences, and gutters that were built and paid by the company. The houses built for these workers were at least 49m² in size, and they were built in a plot of land that could be planted for food or cash crops such as *jarak* or castor-oil plant (*Ricinus communis*). The company subsidized 60 percent of the house, which costs f.125 each. In addition to housing, standards were set for hygiene and drinking water. These measures were taken by the company to "enable a fair, human, and dignified treatment of the workers [...] and to keep the coolies feeling happy (*senang*) which is the only solution to obtain an established and reliable working community." Dienst der Arbeidsinspectie en Koeliewerving, *Verslag van Den Dienst Der Arbeidsinspectie En Koeliewerving in Nederlandsch-Indië [Reports of the Labor Inspectorate in the Netherlands Indies]*, 34, 110-11.

³⁵ Dienst der Arbeidsinspectie, *Verslag van Den Dienst Der Arbeidsinspectie in Nederlandsch-Indië over de Jaren 1921 En 1922. [Reports of the Labor Inspectorate in the Netherlands Indies over the Year 1921 and 1922]*, 54.

integration of *kampongs* in established municipalities—subsequently enabling housing improvement programs—which was enacted only in 1918 (Dick: 184-185). Subsequently, it can be argued that petroleum companies such as the BPM spearheaded the rise of colonial *Kampongverbetering* projects that were evident in almost all of the major cities in the Indies.

Capital-intensive industries built these housing projects primarily to elevate their competitiveness in attracting more skilled workers in the labor market. This is the reason why these housing projects were also evident in other capital-intensive firms. Similar housing projects were observed in the working areas of the Deli Railways and the KPM.³⁶ Unlike the housing in BPM complexes, however, other company-built housing complexes were often squalid, overpopulated and disease-ridden, such as the conditions of the State Railways (*Staatspoorwegen*) housing complex in Cirebon in 1916 and Surabaya in 1926 (Ingleson: 43-44). Another contrasting picture would be of the worker housing at the coal mines at Ombilin in 1914, in which coolies and workers were housed in barracks built with rudimentary methods and lacking in basic needs such as privacy and clean water, a condition that persisted in the coal mining town until 1925 (Erman, : 52-53).

c. Health Services

Under the provision of the Indies labor laws, companies were obligated to provide their workers with not only housing and food but also health facilities. Consequently, major petroleum companies such as BPM established hospitals and medical centers to maintain the health of their workers. In 1914, most of the workers that were conducting exploration and drilling activities in the East Sumatran concessions of BPM were usually referred to the Central Hospital at Pangkalan Brandan.³⁷ The company also maintained central hospitals in Perlak (Aceh) and Palembang, which went into operation in 1917.

While the availability of health facilities may invoke the impression that oil companies such as BPM had a standardized healthcare system across its working facilities, service quality varied between the regional hospitals and the central hospitals in the oil cities. Differences were evident with equipment, ranging from “a simple first-aid kit and some extra beds in a separate room” in an oilfield clinic, “a simply-equipped but low-skilled staff” hospital in regional centers, and “government-appointed European doctors” in the central hospitals (Nierop: 162).

During the period, labor health was one of the primary concerns of the Indies government. Subsequently, the Labor Inspectorate often conducted health inspections—such as on the prevalence of pneumonia, tuberculosis, malaria, and hookworm disease in 1927 in Balikpapan,³⁸ and published recommendations to promote nutrition and hygiene awareness for child health, such as in Pangkalan Brandan in 1933-1936.³⁹ To a certain extent, industrial characteristics mixed with governmental oversight from the colonial state played a major role in promoting the development of these health facilities.

³⁶ M.W.F. Treub, quoted in Mrázek, *Engineers of Happy Land*, 70–71.

³⁷ Dienst der Arbeidsinspectie en Koeliewerving, *Verslag van Den Dienst Der Arbeidsinspectie En Koeliewerving in Nederlandsch-Indië [Reports of the Labor Inspectorate in the Netherlands Indies]*, 105.

³⁸ Kantoor van Arbeid, *Verslag van de Arbeidsinspectie Voor de Buitengewesten (1927) [Reports of the Labor Inspectorate in the Outer Regions 1927]*, 134.

³⁹ Kantoor van Arbeid, “Verslag van de Arbeidsinspectie (1933-1936) [Report of the Labor Inspectorate 1933-1936]” (Landsdrukkerij, 1937), 101.

d. *Recreational Facilities*

Petroleum companies were renowned for their extensive attention to workers' well-being through the provision of recreational facilities. In late 1930s South Sumatra, for instance, oil companies were the only companies that provided cinema performances, constructed sports fields, paid attention to the celebration of festivals in their concessions, and arranged for shadow puppets (*wayang*) and traditional Javanese music shows (*gamelan*).⁴⁰ Workers at the BPM Plaju and NKPM Sungai Gerong oil enclaves of Palembang enjoyed infrastructure and public facilities that were not evident in the upstream sector during the later years.

After its foundation in 1897, Plaju is located in the southern bank of the Musi River just downstream from the South Sumatran city of Palembang. In 1898, a modernization plan that was quite similar to Pangkalan Brandan was undertaken by the BPM in Plaju, with worker housing, factories, warehouses, and port built in the oil complex. During the 1920s, there were already public facilities such as a water supply system, a tennis court, a swimming pool, clubs (both for European and Asian employees), central hospital, and a shopping center in Plaju (Tanjung, 2014: 303).

Similarly, the NKPM enclave of Sungai Gerong also experienced an expansionary phase, not unlike the one in Plaju.⁴¹ American managers took great pride in the development of Sungai Gerong. In a Congressional hearing in 1945, Standard-Vacuum representatives boasted about their role in introducing new consumer technologies to the Indies by claiming that the company's operations in Sungai Gerong had "brought to the [Indonesian] and [Dutch] population the advantages of electric lights, ice, and refrigeration, as well as pure running water which had been settled and chlorinated in modern waterworks[,] while modern sewage disposal and properly drained camps improved the health of the population."⁴²

The two petroleum enclaves were very influential on the economy of Palembang. Centered in Plaju and Sungai Gerong, the petroleum industry was widely considered a symbol of "prosperity" for the Palembangese in 1920, and the availability of modern infrastructure and facilities helped to perpetuate this perception (Zed, 2003: 80). More often than not, workers in the oilfields requested to be transferred to the oil cities such as Plaju, Sungai Gerong, and Pangkalan Brandan, although these requests were not always fulfilled by the companies (Dienst der Arbeidsinspectie: 4).

Most of the arrangements for recreational facilities were evident only during the later years, and most of these were the initiative of the petroleum companies themselves. Neither the construction of recreational facilities were required by the labor or mining laws, which explains why the availability of recreational facilities varied between sectors. Further, workers posted in the downstream sector experienced better working conditions through the availability of basic

⁴⁰ Kantoor van Arbeid, "Verslag van de Arbeidsinspectie (1937 En 1938) [Report of the Labor Inspectorate 1937 and 1938]" (Landsdrukkerij, 1939), 129.

⁴¹ Dutch journalist L.D. Petit, who visited Sungai Gerong in 1929, wrote: "the refinery, houses, leisure facilities, clubhouses, and swimming pool were completed in a short time of only about 18 months. It now has a refinery with a daily capacity of approximately 4,000 barrels of the most modern construction, with all equipment including the necessary work and storage areas and tank space. There is a modern boiler system with steam and electrical lines, pumping apparatuses, and a sulfuric acid factory for the manufacturing of refined oil of the highest quality." L.D Petit, "Soengai Gerong," *Nederlandsch-Indië Oud & Nieuw*. [*Netherlands Indies, Old and New*], April 1929, 367.

⁴² United States Senate, "American Petroleum Interests in Foreign Countries," § Special Committee Investigating Petroleum Resources (1945), 285; Anne L. Foster, *Projections of Power: The United States and Europe in Colonial Southeast Asia, 1919-1941*, American Encounters/Global Interactions (Durham [NC]: Duke University Press, 2010), 373-74.

infrastructure, housing, and facilities—such as hospitals, clubs, and swimming pools—and the availability of these perks was affected by the character of the petroleum industry and firm maturity.

Conclusion

In their study of public discourse regarding the American petroleum industry, Roger M. Olien and Diana Davids Olien point out that the negative discourses against the US petroleum industry were perpetuated by moralism, in which “assumptions boil down to normative ideas about the petroleum industry that may or may not have foundation in any operational reality” (Olien & Olien, 2000: 251). Often, our view of the industry is clouded by the preconceived ideas of the oil company: greedy, monopolistic, wasteful, environmentally damaging, and politically manipulative. This is also the case with the Indies petroleum industry: moralistic discourse seems to influence the historiographies of labor in the Indies, particularly on the workers in the petroleum industry, by portraying refinery complexes as a workers’ paradise.

When we want to measure the quality of life and working conditions of workers in a colonial setting, it is imperative to disaggregate rather than to look for a single, absolute explanation. In the case of the petroleum industry, focusing on the typical measurements of labor history—examination of material and non-material factors—with an *a priori* assumption of the Indies petroleum companies’ providing a just and safe haven for skilled workers tend to provide scholars with a distorted conclusion that ignores a wide range of factors, such as technology and its influence on the nature of work being done, or the relationship between the industry and the Indies colonial state.

This paper has aimed to tackle a single question within the vast possibilities of writing a socioeconomic history of the petroleum workers in the Netherlands Indies during the late colonial period (1890-1939) by examining material factors (working hours, wages, housing, food, health, and recreational facilities) experienced by the workers. These material factors were thoroughly shaped by the idiosyncratic characteristics of the petroleum industry. It should be noted, however, that working conditions in the oil cities were also affected by other factors such as non-material conditions. Labor historians of colonial Indonesia tend to ignore these elements, often focusing only on comparative material and non-material factors across a variety of industries, without sensitivity to the idiosyncratic fluctuations and variances evident in the upstream and downstream subsectors of the petroleum industry.

There were, however, overarching trends that permeated the industry almost universally, such as discrimination based on race and ethnicity. Similar to the oil workers in 1920s Veracruz (Mexico) (Santiago, 2006: 6-7) and Dhahran (Saudi Arabia) (Vitalis, 2009: xxix), workers in Pangkalan Brandan, Palembang, and Balikpapan were also exposed to racist, discriminative practices that significantly influenced the working conditions for the Indonesian workers. Racially-based discriminative practices, however, was a ubiquitous trend that are identic with colonial labor regimes and colonial societies in particular.

The industry emerged as a capital-intensive and high-risk enterprise during the early pioneering years and matured into an advanced, well-paying industry during the later years. This fact, however, did not guarantee that oil workers were free from discrimination, danger, or discontent. Just like other workers in late colonial Netherlands Indies, oil workers also experienced a high-risk workplace⁴³, ethnic and racial discrimination, and labor unrest.⁴⁴

⁴³ Accidents often happen in the petroleum towns and oilfields. Two of the most prominent examples were the 1925 explosion in BPM’s Balikpapan refinery, leaving two Indonesian workers killed and four others injured.

To conclude, this paper illustrates that the working conditions in the Indies petroleum industry was not only shaped by fluctuations over time, but also influenced by idiosyncratic developments within its constituent sectors. By examining these working conditions, we come up with a narrative that does not conform to the established accounts of labor in colonial Indonesia.

Another is the 1931 fire at the BPM emulsion plant at Sanga-Sanga (East Borneo), killing six European employees. “Gasontploffing Te Balikpapan [Gas Explosion in Balikpapan],” *Het Nieuws van Den Dag Voor Nederlandsch-Indië*, July 20, 1925; “Het Ongeluk Te Sanga-Sanga. [The Accident at Sanga-Sanga],” *Het Nieuws van Den Dag Voor Nederlandsch-Indië*, January 9, 1932.

⁴⁴ Although rare, strikes and riots did happen in the oil towns across the Indies. In May 1920, 1,000 Chinese coolies working for the BPM went on strike at Balikpapan to demand a shorter working day, higher wages, and paid holidays (particularly on Chinese holidays). In February and August 1923, Indonesian and Chinese clerks (*kranis*) and artisans (*tukangs*) in the BPM oil town of Tarakan protested in response to a wage cut. On October 30, 1925, Chinese and Indonesian (Javanese and Macassarese) coolies in Sungai Gerong rioted due to racial tensions, resulting in the death of one Javanese and many coolies injured. Nierop, “Lonely in an Alien World: Coolie Communities in Southeast Kalimantan in the Late Colonial Period,” 173; “Ernstige Staking Te Tarakan [Serious Strike at Tarakan],” *De Indische Courant*, February 2, 1923; “De Tweede Staking. [The Second Strike],” *De Indische Courant*, August 8, 1923; “Koelie-Relletjes. [Coolie Riots],” *De Indische Courant*, November 2, 1925.

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